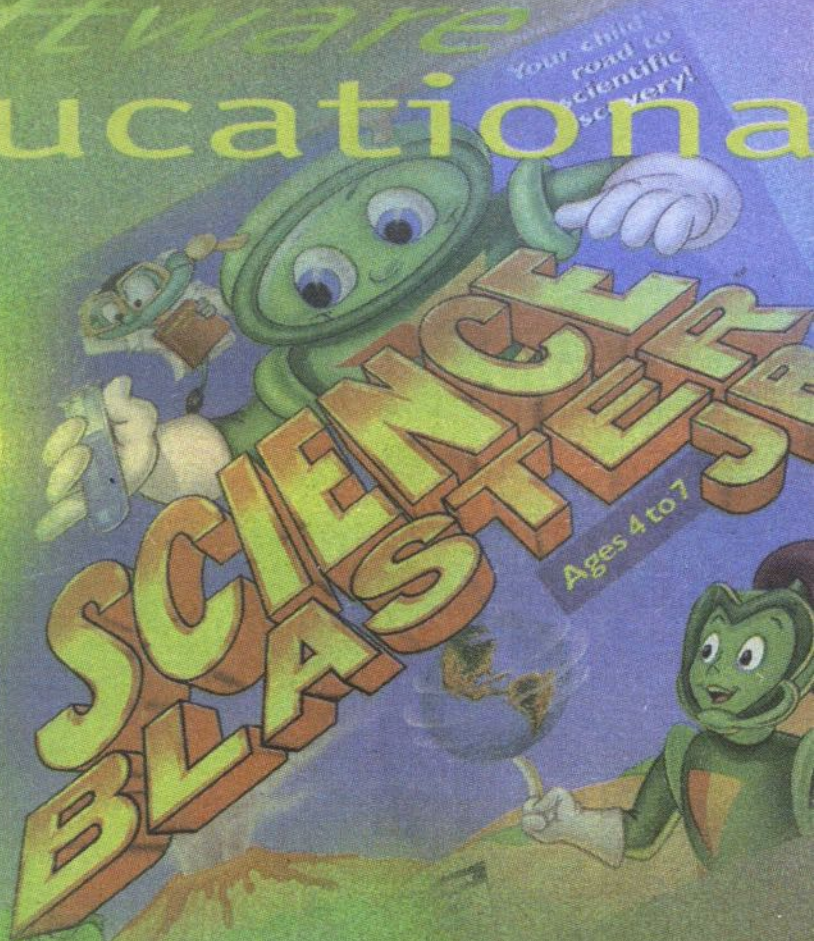
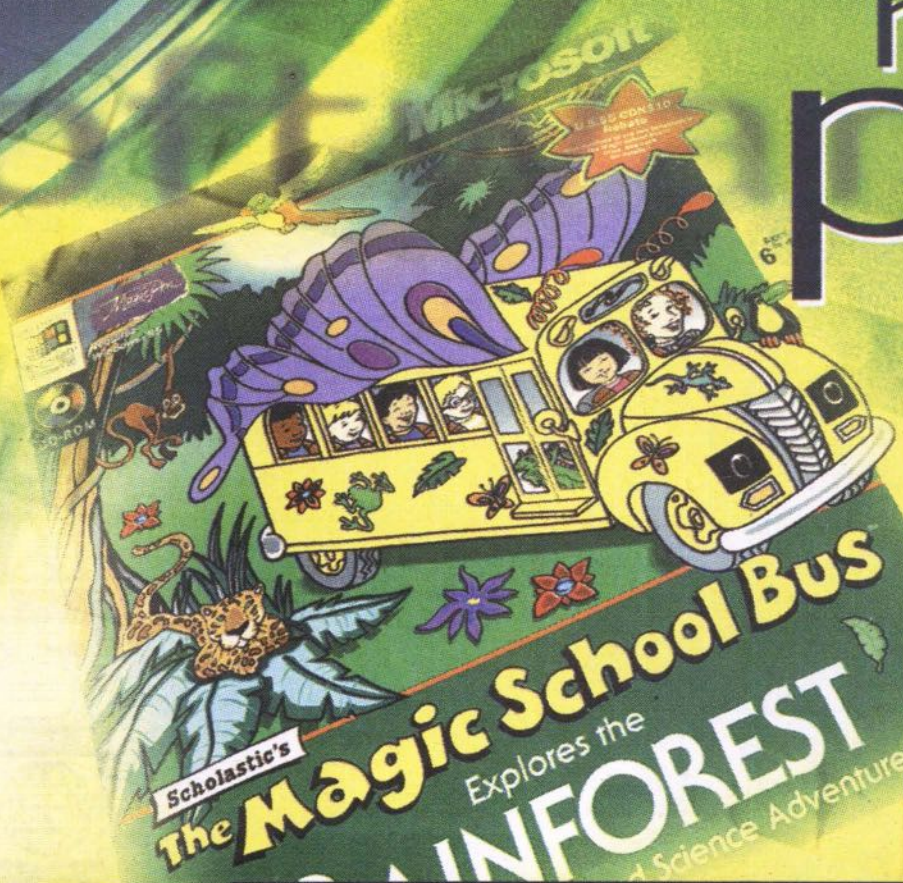


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ABOUT THE COVER

Jennifer Hanlon Scott used Photoshop 4.0 motion and paint filters and Adobe Illustrator 6.0 to create this month's cover, which features educational CD-ROMs that are reviewed in this issue.

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The Whole Wide World

letter from the editor



lifelong learning a reality—and a necessity. Some children will be returning to their classrooms in September fresh from computer camps where they will have created Web sites, programmed PCs and participated in projects with kids on the other side of the country and around the world. And because their education didn't stop when the last bell rang at the end of June, their teachers also have to be up on the possibilities of new technology, to keep these computer-keen kids from nipping at the heels of their own nascent computing knowledge.

Computer-aided education is stretching across the boundaries of age as well. Multimedia CD-ROMs are now available to help children as young as three begin to read and become comfortable with a keyboard, mouse and monitor. The boundaries are being crashed at the other end of the age spectrum too. Curiosity and eagerness to learn about possibilities of computing is not limited to the young. The most curious and enthusiastic attendee I saw at the recent Comdex Canada 97 was in his 70s. We kept crossing paths as we travelled through the Metro Toronto Convention Centre, and I witnessed him trying out every new gadget, and having the details of every piece of software and hardware explained to him.

The definition of "ability" is also changing, thanks to new technology. It is opening doors to people previously isolated by their handicaps. In our guest column this month (page 35), author and business

It may seem premature to be writing about "back-to-school" themes—especially as summer has only recently appeared here on the West Coast—but as this issue illustrates, education in the Information Age is rapidly expanding, not just beyond the physical limits of the classroom, but also beyond the confines of the school year.

Computers and especially the expansion of networks are making

executive Hillary van Welter describes how she witnessed computers being employed to help open up the world of learning to even severely disabled children.

In this issue we see how online learning is providing access to people previously unable to participate due to time or distance barriers (see page 10). And British Columbians, true to their pioneer spirit, are leading the way. Researchers at both of the universities in the Lower Mainland are developing software and other tools that enhance the participation of students in remote locations, allowing them to tailor their course of study to their needs and schedules.

Less formal learning is proliferating on the World Wide Web, where, for example, there are free courses for learning a number of languages, including Chinese, French, Welsh, Arabic and even Maori (see page 14).

For the curious, technology is tearing down barriers and opening up the whole wide world to those who want to take the trip.

New face

Regular readers of the *Computer Player!* will notice that mine is a new face on this page. The good news is that Editor-in-chief Mara Gulens, who is based in Toronto, will still be carefully crafting the editorial direction of the *Computer Player!* and the

other *Canada Computes!* titles. The really good news is that, with an associate editor here in Vancouver, we'll have an opportunity to give better coverage to computer-related developments and news in British Columbia. To that end, let us know what you think and what you'd like to see covered in the *Computer Player!*

For those of you who have enjoyed Mara's monthly observations, take heart, you can still read her column every month at the *Toronto Computes!* Web site, just point your browser to <http://www.toronto-computes.com/>.

Megan Johnston

Associate editor

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"Some children will be returning to their classrooms in September fresh from computer camps where they will have created Web sites, programmed PCs and participated in projects with kids on the other side of the country and around the world."

Your letters please

Letters on issues raised in the paper or general computer topics are welcome. Please be brief. We regret that we are unable to look up stories from past issues, suggest products, or solve all your computer problems. Only those with names and e-mail or snail-mail addresses will be published. Letters may be edited for space or content.

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Cluster size Does Not Compute

Alan Zisman's article, "Waste not, want not," in your July 1997 discusses an important issue: the waste of disk space caused by large cluster sizes.

Unfortunately, the article overstates the case in two of three examples. If a drive has a cluster size of 4 (1,024) characters or bytes, and each file wastes an average of half a cluster, then 1,623 files waste 3,323,904

characters (based on a calculation of $1,623 \times 4 \times 1,024 / 2$), in approximate agreement with Mr. Zisman.

However, if the cluster size is 16 (1,024) characters, then 8,408 files waste 68,878,336 characters (based on a calculation of $8,408 \times 16 \times 1,024 / 2$), about half the 135 million Mr. Zisman indicates.

Similarly, a cluster size of 32 (1,024) characters and 10,000 files waste 163,840,000 characters (based on a calculation of $10,000 \times 32 \times 1,024 / 2$), about half the 320 million Mr. Zisman indicates.

I agree entirely with the main point of the article, that waste should be minimized. I correct the examples only to strengthen the case. The correct numbers in the second two examples may not be as large as Mr. Zisman said, but they are still big.

David P. Maroun

Alan Zisman replies: David Maroun is absolutely correct... be caught me in a math mistake (and me, a math teacher in my day job!). I suspect I neglected the last step, dividing by two. However, the reality, at least on my hard drive, is worse than the figures correctly estimated by Mr. Maroun. In fact, they are closer to my (incorrect) math—in fact, more exact measurements of that 800 MB partition drive (which I've cleaned up to now have "only" 6,113 files) suggests 102 MB of waste space, representing 22 to 30 percent waste (depending on whether you compare it to the total space used, or the space actu-

ally used by files).

Mr. Maroun is right in his conclusions... cluster waste is a problem, and we all (even I) need to double check our math!

Cheap Shots

I was interested in reading that digital cameras are getting smaller and cheaper (Digital camera survey, July issue). What I am not clear on is the operating cost or per-picture cost of these systems. Am I correct that the cost is negligible, i.e., so small as to be insignificant? If so, it wouldn't take many snapshots to add up to that US\$199!

Sincerely,

Franklin Wayne Poley, via email

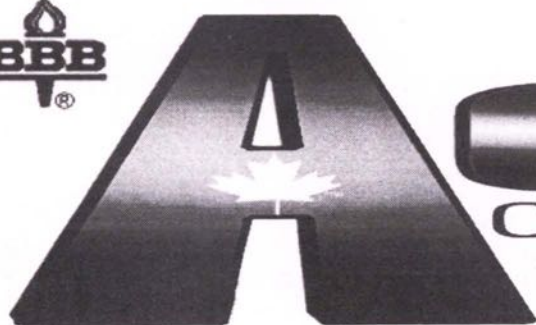
Megan Johnston replies: Your assumption that the operating cost is negligible is correct, because there are no consumables—i.e. film—with digital photography. (There is, of course, the cost of batteries, but this is also the case with film-based photography). For some digital cameras, extra memory in various forms can be purchased, but even this is reusable. The more significant consideration at this point in the development of digital still photography is quality. At the consumer level, film output still has the edge—for now.

The Return of OS/2 Ready

One of the main reasons I make a point of reading the *Computer Player!* each month is Kevin Linfield's OS/2 column. Hope it's back in the next issue.

Thanks, Dave Cull

Continued on page 8



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Opening the July *Computer Player!*, I find Kevin Linfield's "OS/2 Ready" column nowhere to be found. Please bring it back! It's sorely missed.

Thanks, Michael Shillingford

Megan Johnston replies: Your wish is my command, OS/2 Ready returns this month to the *Computer Player!* on page 30. Also, for more on OS/2, turn to the "You Asked Us" column on page 56 for Kevin Linfield's replies to OS/2 reader's questions.

Another OS/2 fan

I have to say that I enjoyed your article (Alternative Storage, *CP!* June 97) which made me somewhat regret the purchase of my JAZ drive. That is until I went into SyQuest's Web page looking for OS/2 drivers for the SyJet drive. To my dismay, I could find no indication that Syquest had ever heard of OS/2.

Since you have shown good support for OS/2 over the years, I feel that it should be mentioned when OS/2 drivers are not available for a recommended product.

(I'd also pass on to SyQuest that they are ignoring 20 million potential users who are technically more aware and therefore more likely to choose the technically best product if they support it under OS/2.)

Richard Dinning, via email

White Pages to list email addresses, URLs—for a fee

The next White Pages listing delivered to your door will likely be a little fatter. BCTel is now offering to include email and uniform resource locator (URL) addresses below the phone listing for your business, residential or government number. If you have more than one electronic address—no problem. You can have both (or all) listed. Cost for the new service is billed to your monthly phone bill at a rate of \$1.80 (plus tax), with an additional one-time "administration" charge of \$9.50.

According to BCTel, having your email address listed in print avoids the confusion accompanied with trying to communicate your address verbally over the phone—especially if your address includes unusual characters or keyboard symbols.

In keeping with the program, requesting your electronic listing be included in the White Pages can only be done electronically, through an order form found on the BCTel Web site at <http://www.bctel.com>. You'll also



Street Buzz

Steve Bain

find the deadline for submitting email and Web addresses for your area's next White Pages directory, and the date the directory will be issued, on a schedule found on the Web site. If you have questions, email BCTel directly at wp listings@bctel.com.

Glenayre Gets Huge Taiwan Contract

ChungHwa Telecom, Taiwan's national telecommunications company, has contracted Vancouver-based Glenayre Technologies Inc. to establish a new high-speed nation-wide paging network—a deal valued at more than \$31 million. ChungHwa Telecom is Taiwan's largest provider of paging services, with more than two million subscribers. The new network will be capable of increasing the company's capacity by more than one million subscribers. During the next year, Glenayre will build three huge switching wireless messaging switching centres, and will install more than 1,500 transmitters and system controllers.

Glenayre provides telecommunications equipment and related software used by leading personal communications service (PCS) providers worldwide. The company specializes in paging, cellular, voice processing, point-to-point wireless interconnect and communications network administration products and systems. Glenayre's net sales reached roughly \$400 million last year and the company employs approximately 2,100 people worldwide. For more information on Glenayre see the company's Web site at <http://www.glenayre.com>.

Profits Jump for Vancouver CBT Developer

Vancouver-based FirstClass Systems Corp. recently announced a significant increase in fiscal year end profits. Profit grew 75 percent reaching nearly \$140,000 on revenues of roughly \$10 million, compared to the previous year's profit of \$40,000 on revenues of roughly \$5 million. FirstClass Systems Corp. has been developing computer-based training and interactive multimedia courseware since 1987. For more information on FirstClass, go to the corporate Web site at <http://www.firstclass.ca>.

Continued on page 11

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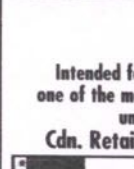
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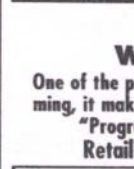
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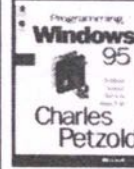
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P133, 16MB, 1.35GB, 10.4TFT, Win95

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Adaptec 2940 SCSI ctrl 265
Adaptec 3940 SCSI ctrl 530

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Jaz 1G int/ext 489/600
Iomega 800M tape drive int./ext. 138/199
Iomega 2G tape drive int./ext 199/260

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MEMORY

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72pin 16M/ 32M EDO 73/155
DIMM SDRAM 16M/32M 128/199
256/512K Pipeline Cache 20/40

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Intel P150/166/200 180/210/299
Intel MMX P166/200 295/390
Intel Pro 180/200 429/629

MOTHERBOARDS

Pentium Triton III 256KPB 82
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PentiumTX 512K PB Cache 139
Pentium Pro new FX USB 185
GigaByte PCI VX 512K 138
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new Trident Pro 9685 64bit MPEG, TV 52
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S3 Verge 3D MPEG 2M 55
S3 Verge 3D MPEG 4M 65
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ATI 3D Expression 2M/4M 82/149
ATI Pro Turbo 8M 269
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Matrox Millennium WRAM 2/4M 179/239
Matrox Mystique 220 4M(new) 179
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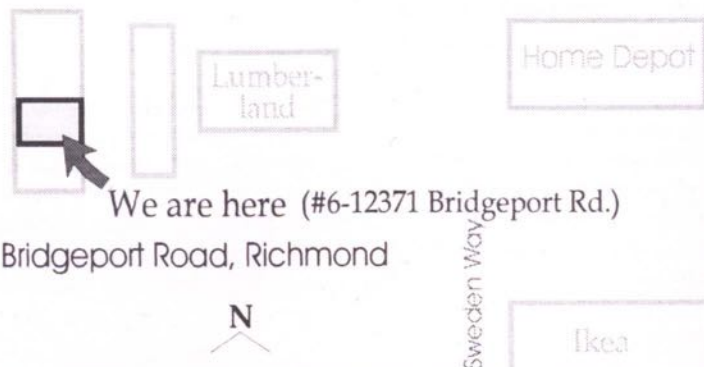
Zoltrix 33.6K Win FaxModem int \$ 49
Zoltrix 33.6K Voice FaxMod int 75
Acer 56K Voice Fax Modem 129
USR 33.6K FaxModem int 125
USR 56K FaxModem int 200
Cardinal 128K ISDN 249

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Logitech 2B Mouse 16
1.44M Floppy Drive 29
Switch Box for 2 Printers 25

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Online Education

by SANDRA MINGAIL

Day by day, the choices in online courses become broader and more sophisticated in delivery. Distance-education students can register for accredited university courses, graduate degrees, or special-interest, non-credit lessons. Even high-school and elementary students can elect to learn from the comfort of their home—although the selection remains limited for this age group.

New Breed of Custom Courseware

Traditionally, post-graduate universities offered distance-education courses replete with textbooks, audio cassettes, and stringent deadlines for submitting assignments. Teacher-student communication was limited to telephone calls. Distance learning was essentially an isolating experience.

Today, the emergence of client-server courseware enables student-instructor connections in pedagogically sound learning-teaching scenarios.

Toronto's Humber College uses a version of client-server software called Worldgroup. The software enables students to communicate with teachers through email forums, as well as text and graphics chat mode. A special chat channel puts students in touch with fellow learners. Worldgroup allows students to access Humber's learning software over the Web, as well as the school's collection of CD-ROMs.

At the University of British Columbia's department of computer science, Murray Goldberg has been instrumental in the design of a distance-teaching tool set. Over 500 universities, colleges, and businesses in almost 40 countries have signed up for beta testing of WebCT. The tools built into this software are designed to maximize communication and collaboration over the Web.

Using WebCT, synchronous sharing of information is enabled through chat areas. Students take notes online, generate a custom study

guide, track their course progress, and assess their learning on an ongoing basis. The software offers instructors a host of options. Course management, module revisions, online marking, record management, and student tracking are all supported.

Linda Harasim and Tom Calvert, professors at Simon Fraser University in Burnaby, have developed Virtual-U, another server-based software system designed for the delivery of Web-based training courses. Virtual-U is being field-tested at 15 educational and corporate locations across Canada.

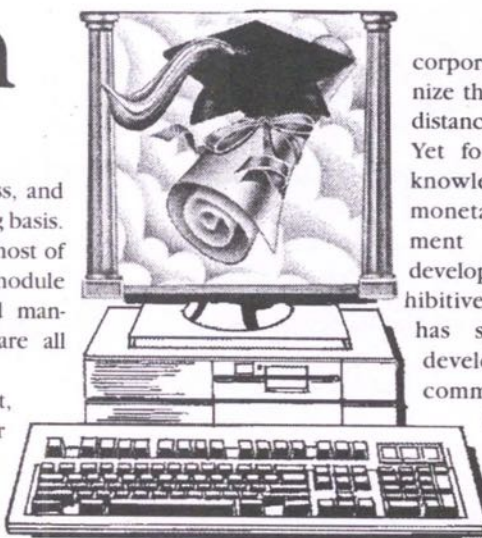
This software incorporates templates that prompt instructors on information such as required course readings, grading standards, group-conferencing assignments, and weekly overviews. Collaborative groups are set up and tasks and objectives defined. Conferences and sub-conferences are created. Students can take on roles as moderator, participant, or observer.

As with most Web-enabled courseware, multimedia components such as video, audio clips, and animations may be inserted into course modules or messages.

Current online courseware claims to be based on principles of active learning and collaboration, hence the heavy use of both asynchronous as well as synchronous conferencing. A licensing model of distribution seems to be the norm. Educational institutions purchase a single server licence with a cap on how many students can enroll in a course. The greater the number of students, the greater the annual licence cost. Online training and support from the software developer increase the tab.

Emerging Courseware publishers

More and more educational institutions or



corporations recognize the benefits of distance education. Yet for many, the knowledge and monetary commitment in course development is prohibitive. This need has spurred the development of commercial publishers of interactive Web-based courseware.

University Online (UOL) assists corporations and academic institutions in developing online courses. They acquire, convert, and develop online course content for delivery over the Internet and corporate intranets. UOL acts as either a courseware-development consultant or a licensor of its own Web-based delivery system. It has formed a number of partnerships with established institutions, such as the University of California at Berkeley's continuing education department. The schools provide the content expertise, while UOL provides the design and technical know-how.

This fall, UOL's course catalogue will include 50 different offerings, including 3D Solid Modeling, AutoCAD, and Financial Accounting.

In-house solutions are surfacing as well. The University of Alberta's academic technologies for learning group works with the university's departments to develop new instructional approaches. Professional development, sup

Provincial Network Initiatives

As more and more Canadian school boards get wired, we witness a greater number of partnerships that pool talent, technical, and monetary resources. The New Brunswick educational network is working to empower its

large base of rural communities. A 1993 study claimed that more than 52 percent of the province's population never completed high school, with more than 24 percent of adults possessing less than a Grade 9 education. The province is making a major commitment to its distance-education strategy to improve these circumstances.

British Columbia's Open Learning Agency, based in Burnaby, is a partnership between government, industry, and education. The agency offers accredited university courses as well as Kindergarten to Grade 12 courses. An online work-internship program was initiated in the past year.

British Columbia's Open School program follows the provincial curriculum. It is a branch of the technology and distance-education division of the Ministry of Education Skills and Training. Open School services are delivered in partnership with the Knowledge Network and the Community Learning Network. Current courses include first nations studies as well as adult basic education.

Challenges Ahead

Without a doubt, innovations in distance education—like most areas of computer technology—keep on barreling forward. Yet those committed to online learning must surmount fundamental issues.

Rob Higgins, of the Gymnasia Virtuales, has served over 300 online learners over the past year. One of his institute's most popular courses teaches instructors how to deliver an online course. According to Higgins, many people believe that traditional course material can easily be reworked and posted as a type of online lecture format. To Higgins, this defeats the real potential of distance learning as a medium that fosters cooperative learning and group interaction.

As online education matures, so too will the many flavors of technical solutions and pedagogical strategies. With luck, students will reap the benefits. ♦

Teaching Writing by Email

by Paul Lima

tures, personal exercises, and assignments—and went looking for online markets.

The first question that came to mind was: How do I promote my courses? The answer: online, of course. I set up a Web site outlining the courses and promoted them in appropriate newsgroups and mailing lists.

While the response wasn't overwhelming, I was pleased and surprised that students signed up. After all, I'm an individual, not an educational institution. But I feel I established my credibility with an informative, well-designed site and with prompt replies to requests for information.

Going Mainstream

After running a few private courses successfully, I contacted the continuing-education division of Georgian College (a community college located in Barrie, Ont.) and asked administrators if they wanted to make my courses part of their continuing-education program. They did, and since last fall I have conducted online training for over 50 private and college continuing-education students.

Students either send me a (no, I am not into online commerce yet) or register for courses through the college. Once registered, students receive lessons by email. They also use email to ask questions, submit assignments, receive feedback on assignments, and to communicate with other students.

While I'm located in Toronto, the world has become my classroom. I have conducted courses for students in Vancouver, Calgary, Barrie, Orillia, Toronto, Ohio, California, Jamaica, and South Africa.

The only pre-requisites for the courses are the desire to write and the ability to send and receive email. Each course module includes lecture notes, research and writing exercises, and assignments students submit by email for feedback. This is similar to in-class situations, where instructors use a variety of techniques (lectures, exercises, assignments and feedback) to keep courses interesting.

College students have set course start dates and have to complete courses within a set period of time (about 12 weeks), but private students can start courses any time and work

at their own pace.

Although my courses are designed like traditional snail-mail correspondence courses, email makes the interaction more immediate and fulfilling. And I am now looking at setting up a mailing list for even greater interaction and at offering courses designed as HTML files.

Shaking the dust off

There are differences between teaching in a classroom and teaching online, but not many. While I don't miss writing on blackboards and inhaling chalk dust, I did miss the immediate feedback an instructor gets when looking at a class of students roll its eyes, laugh, or start to work.

The feedback comes as classes progress however, and students become bolder. In one course, I even had a class clown who sent me witty notes and got other students giggling.

Overall, feedback from students has been positive. Many have told me they felt they were getting "individual attention" and "personal feedback" even though the course was

conducted online. Others liked the fact that they could work at their own pace. As one said, "I enjoyed not having to rush off to class at 7 p.m. on a cold snowy night."

It seems cyberspace generally has opened many opportunities for business partnerships. Conducting online training has led to several opportunities for me. After six months of conducting courses, I've established new partnerships with Sheridan College and with an educational broker in the United States who co-

ordinates courses for several American universities.

And there has been an unexpected bonus: several corporations have asked me to develop online writing and communication courses

for their employees.

So, can the Internet replace classroom training? Based on my admittedly limited online training experiences, the answer is yes. And as audio-video interaction over the Net evolves, it

will become an even more effective and interactive training medium.

Contact the writer, via Paul Lima Communications' Web site at <http://web.idirect.com/~canuck> ♦

Street Buzz

Continued from page 8

Maximizer Releases Free Web site Creation Software

Last month, Vancouver-based Maximizer Technologies Inc. announced the free release of MARKETbuilder, a wizard-based Web site creation tool, capable of quickly creating "professional-looking" commercial Web sites. MARKETbuilder is integrated with the company's leading contact management software, Maximizer 97. Each MARKETbuilder Web site is hosted at no cost in an online business site called the Maximizer BusinessNet found at <http://biznet.maximizer.com>. Users may download customer profiles from the site directly into their existing Maximizer database. Maximizer Technologies is a privately held company in the MultiActive Group of Companies, owned by Terry Hui, president of Concord Pacific Developments Ltd. For more information on Maximizer Technologies, call 604-601-8000, or point your browser to <http://www.maximizer.com>.

Reboot producer trades on TSE

Vancouver-based animation producer Mainframe Entertainment took to the Toronto Stock Exchange recently under the symbol MFE. Mainframe creates the all CGI-based *Reboot* and *Beast Wars* animated television series, which is aired in 46 countries. The company launched the initial public offering at three million shares priced at \$10 each. Toronto-based Alliance Multimedia recently sold back 700,000 of its shares to the giant animation studio. Mainframe is also producing two IMAX films, and a computer game based on *Reboot* in conjunction with computer gaming giant Electronic Arts.

ALI Technologies, IBM to Develop Clinical Image System

Vancouver-based ALI Technologies and IBM are jointly developing a medical image archiving technology capable of serving entire regional districts. The Canadian Network for the Advancement of Research, Industry and Education will fund the new venture with a \$336,000 repayable grant. The project was awarded on a competitive basis with ALI's submission being chosen from 250 applications. ALI develops medical image management networks for hospitals and proprietary software and hardware systems for clinical imaging.

Steve Bain is the Computer Player/Canada Computes western correspondent in Vancouver, Canada. Send news tips, questions or comments to Steve@helix.net. ♦



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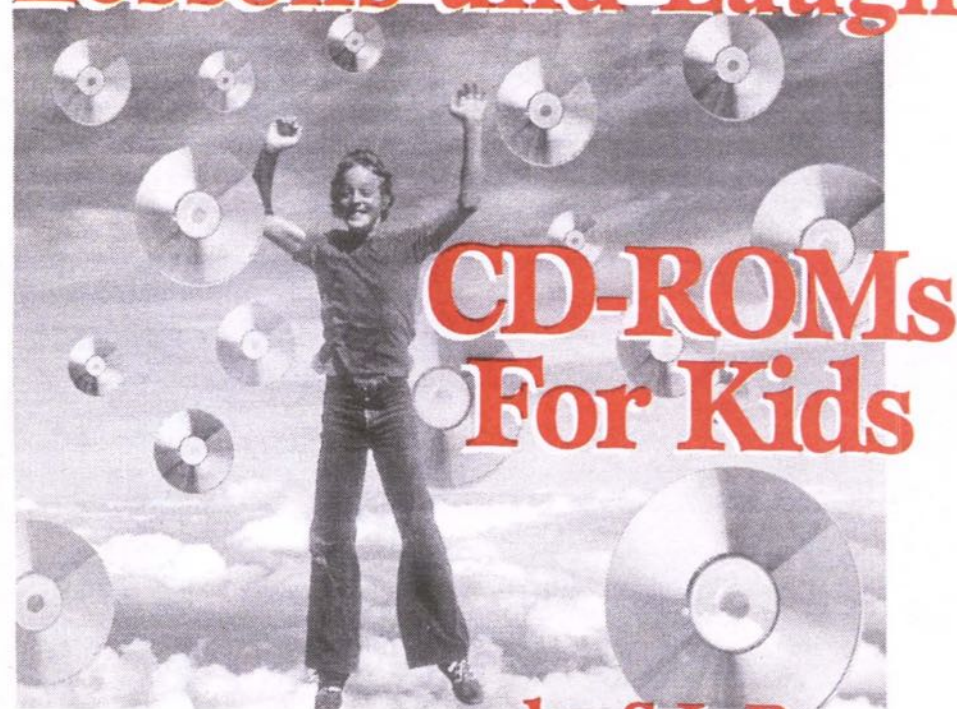
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Lessons and Laughs:



by S.J. Ross

With delightful characters and engaging interactivity, one of the best advantages the computer can offer children is a lesson that is so fun they want to learn. So keep the likes, dislikes, and educational abilities of your child in mind, and read the following reviews for tips on some of the hottest educational CD-ROMs available (note all prices are suggested retail).

Ready to Read with Pooh

From Buena Vista Home Entertainment. Contact: 800-899-0431. Price: \$45-\$49.

Gather 'round, girls and boys, 'cause if you're between the ages of three and six you can join Pooh and his friends to play games, color, listen to music, watch cartoons, earn certificates, and read letters addressed to you.

Set in the 100 Acre Wood, learning activities are centered around stories where children can interact with A.A. Milne's characters. And when the child has successfully accomplished a task, he or she is rewarded with songs and prizes.

Oozing with charm, and offering three levels of difficulty and clues to help your child, Ready to Read with Pooh provides nine fun activities designed to teach and reinforce basic language skills, such as the alphabet, upper and lower case letters, phonics,

spelling, drawing letters, and rhyming simple words. Pooh, who recently celebrated his 70th anniversary, is as endearing as ever.

The Interactive Alphabet

From Hoffman + Associates. Contact: 888-464-5652. Price: \$22.99.

Finally, a Corel CD-ROM that is fun, exciting, and designed to take advantage of some of the benefits of multimedia. Now owned by Hoffman + Associates (although still bearing the Corel logo), The Interactive Alphabet is a charming multimedia alphabet where goofy characters—including a happy space creature, a dancing reptile, and a sheep on snowshoes—introduce children ages three to seven to letters and words.

The child can choose the letters they wish to learn about, can hear a story and watch a fun animation sequence packed with words starting with the chosen letter, and can pick letter-related words to hear and view additional animations. Children can listen to narration or read to themselves, and can click on individual words to hear pronunciations.

Focussing on 500 words, the program is easy to learn, engaging, and full of visual and auditory candy. But with, for example, no animated writing to teach your child how to write let-

ters, The Interactive Alphabet focuses strictly on recognizing letters and words.

My First Incredible Amazing Dictionary
From Dorling Kindersley, distributed by General Publishing. Contact: 800-342-5357. Price: \$36.95

Aimed at kids ages three to seven including those who cannot yet read or have never used a computer, it is a fun, interactive introduction to 1,000 words. With 3,000 sounds, more than 1,000 illustrations, 850 animations, 2,500 pronunciations, and the option to read or listen to words, definitions, and instructions, My First Incredible Dictionary is packed with whimsy.

Of the three games included—Guess What, Spell It, and What's that Noise?—the last game, with fun noises occurring when the user is right, wrong, and once the game is correctly concluded, is the most fun.

Science Blaster Jr.

From Davidson & Associates. Contact: 800-545-7677. Price: \$40 (Mega Math Blaster is \$50).

The latest release of the Blaster series, this disc centers around Blaster, a spaceship that allows children to collect, sort, and categorize items as they travel through space. Aimed at children four to seven years old, Science Blaster Jr. includes graphics, animation, and music in an amusing journey through science. Children can sing along with Blaster songs, interact with delightful characters, play games, and earn certificates.

Some of the experiments children can conduct include measuring various animals to understand size relationships, and mixing colors to understand color theory. Children will also learn about animals and plants, historical scientific discoveries, weather and seasons, and the properties of sound. If you enjoy this title, consider Mega Math Blaster, which also provides resources for parents.

How Would You Survive?

From Grolier Interactive. Contact: 203-797-3530. Price: US\$24.99.

The only CD-ROM to ever crash my Pentium, How Would You Survive is one part picture book with a primitive animation and slide show, and one part question-and-answer quiz. Offering a comprehensive look into the lives of ancient Egyptians, Vikings, and Aztecs, How Would You Survive—designed for chil-

dren ages seven to 12—includes topics ranging from landscape, wildlife, and family life to lifestyles, clothing, religion, crafts, farming, health care, and morality. Users can examine regional maps and time lines describing major historical events, listen to an animated child narrator (although narrators from different civilizations have suspiciously identical scripts), click on various objects on the screen, and view narrated slide shows.

Billed as an "interactive adventure," the CD-ROM is more book than game, but the information is comprehensive and interesting, the navigation is relatively simple, and a child fascinated by one of these cultures may find the CD-ROM quite interesting.

The Magic School Bus Explores The Rainforest

From Microsoft. Contact: 800-563-9048. Suggested retail price: \$44.95 (each title).

This sixth and newest title in Scholastic's Magic School Bus series provides children with a wonderful interactive romp through a rainforest teeming with plants and animals. Recommended for children ages six to 10, the disc offers a variety of multimedia tools including a butterfly net (to see color photographs of different butterflies), a field

guide, a magnifying glass to magnify areas of interest, a spotting scope to view distant items, and close-captioned features, including the words to the theme song, and the ability to pause the program, or read or print spoken dialogue.

With video clips, narration, sounds, animation, and photographs, this CD-ROM makes excellent use of multimedia—especially animation—to provide a fun-filled tour of the rainforest. From screens loaded with exciting hot spots to endearing animated animals and people, The Magic School Bus Explores The Rainforest has enough fascinating things to do to engross your children for hours.

S.J. Ross, an independent corporate, marketing, employee, and public-relations writer and consultant for an extensive portfolio of corporate and government clients, can be reached at sj.ross@guildnet.org ♦

B.C. CD-ROMs Offer Lessons in History, Geography, Creativity

BY JUNE CAMPBELL

Here's a trio of educational CD-ROMs from B.C. software developers:
Adventure.com U.S.A.

From: VR Didatech

Web site: <http://www.vrsystems.com>

Price: \$49.95, \$59.95 (school version), \$210 (five-computer lab pack).

Produced by VR Didatech in Burnaby, this CD-ROM focuses on American heritage and culture. You'll view the United States as a whole or by region—investigating time zones, geographical information, highways and waterways, historic and heritage informa-

tion and more. This disc is fully interactive and Internet enabled, and users can add their own video, pictures, sounds and text to create personal adventures, or may opt to create interactive adventures with others via an FTP site. Designed for use in school projects, the Adventure.com comes complete with lesson plans, but is also recommended for family projects, business presentations, the travel industry and personal projects. Although rampant with symbols of U.S. patriotism, Adventure.com U.S.A. is a well-designed, entertaining and informative project. It comes on a Win/Mac hybrid CD-ROM.

Making History: Louis Riel and the North-West Rebellion of 1885

From: Monro Multimedia

Tel: 800-267-7710

Price: \$89

This CD-ROM is believed to be the most complete compilation of information on Louis Riel ever assembled. Taking more than two years to produce, Making History is a not-to-be missed study of this exciting period of Canadian history.

Your journey starts aboard a train bound for the North-West Pavilion. Once in the pavilion,

you'll navigate through seven rooms—each providing a different set of information on the Riel years. In the Theatre, a nine-minute documentary introduces you to the topic. Moving along, you can read newspaper clippings in the Newspaper Reading Rooms or use the Map Room to see how events were shaped by land divisions, railways, and political boundaries. The Documents Library features transcripts of letters and statutes, while the photo albums in the Trading Post give you glimpses of people and events. A visit to the Kinetoscope Arcade offers interviews (video,

Continued on page 15



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Language Lessons

by *Lee Lester*

GO VIRTUAL

Japanese, and Spanish to be readily available. A course in Arabic is on its way. Even languages almost unknown in the West, such as Hmong, Kurdish, and Maori have their own Web sites.

Of course, it's all very well to use the Web to acquire vocabulary and learn the rules of grammar and syntax, but how do you learn to pronounce, say, "aktiengesellschaft" (a joint stock company) like a German, or tell a French waiter, "M'sieu, il y a une mouche dans la soupe" (there's a fly in the soup)?

Speak Up

Just as in a book, online courses can provide phonetic approximations—but the big plus of online learning is that sound files can be provided. Download them, record your own attempt, and compare. Just like language courses on an audio cassette or on CD-ROM.

Some language Web sites provide another big plus: discussion areas where even those

with limited knowledge of a language can read what others have to say and contribute to discussions. Make a mistake and you are likely to have it gently drawn to your attention. And participants are likely to be as helpful as in other areas of the Net, such as those dealing with hardware or software problems.

Surprisingly, my search did not turn up many universities offering online courses. There's money there for the language departments of fund-stricken Canadian universities if they seize the opportunity.

Of the major Western languages, only German proved difficult to find. The one Web site that clearly offered German caused my Macintosh to freeze every time I tried to access it. There are many Web sites offering English lessons.

But let's face it. To master a new tongue, there's nothing like speaking. With the growing use of Web phones, you could soon be practicing your pronunciation and vocabulary with a native speaker in Basle, Barcelona, or Berlin. Bonne chance! Viel glück! Good luck! ♦

Language Lessons

Here is a selection of Web sites offering free courses in foreign languages:

Chinese: With Welcome to Online Chinese 101. Dr. Zhang Lizhong of Latrobe University in Bendigo, Australia, has developed a simple but comprehensive introduction to a complex tongue that is becoming increasingly commercially important. Go to <http://chinese.bendigo.latrobe.edu.au/lesson1.htm>.

French: Ooh, la-la! Net Lecturers, Le Guide de la France, features voice-activated buttons with native French voices, and French chat. To brush up on our other official language, go to <http://www.oznet.com.au/France>.

Hungarian: It's said to be about the hardest European language to learn. But if you fancy your chances and want to ask for goulash in Budapest, this site offers a comprehensive introduction, which can be viewed at <http://www.sas.upenn.edu/~arubin/hungarian.html>.

Japanese: Try this award-winning site operated by Pacific Software Publishing Inc. of Bellevue, Wash. To begin with the nicely set-out introduction, go to <http://www.Japanese-Online.com>.

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Latin: London's *Daily Telegraph* ran a 20-week series as an introduction to the Roman tongue that refuses to die. You can download it from the Electronic Telegraph archives at <http://www.telegraph.co.uk>

Spanish: Cuidada! Yes, look out for the University of Missouri's Basic Spanish for the Virtual Student course. More than 50 modules have been prepared by profs for a top-notch

BC CDROMS

Continued from page 12

audio or text) with key figures; the Reference Room helps you find specific information, and the Hallways and Verandah contain pictures, audio clips and other tidbits of pertinent information.

Actors present the lives and views of Louis Riel, Sir John A. Macdonald and other historical figures. Canadian historians provide their perspectives on the events.

Using a special feature called The Journal, students can compile their own collection of material for projects or multimedia reports. A teacher's guide is included.

Making History, was produced by Vancouver's Monro Multimedia with the National Film Board, and in partnership with the Department of Canadian Heritage. In May, the disc won Best Interface Design in the 1997 International Digital Media Awards, beating out Microsoft's MSN.

Paint 'n' Play

From: Funny Face Softbook Company Ltd.

Web site: <http://www.paint-n-play.com>

Email: feedback@paint-n-play.com

Price: \$29.95

Three to five year olds may have to wait for mom and dad to stop playing with this delightful product, designed for the curious, exploratory mind of a young child. Paint 'n' Play stimulates kids to use the computer as a tool of the imagination. It allows a child to have fun while developing creativity.

Paint 'n' Play, a coloring program, adds a musical element—different instruments play in response to different colors in different areas of the picture, and by changing colors a child can gradually change the music from, for instance, a baroque string arrangement to a rhythmic calypso band featuring horns, percussion and steel drums. (Special coding was written to permit the use of MIDI in Macromedia Director programming).

Paint 'n' Play is the dream of producer, Rex Bromfield, a director of feature films and children's TV, who says he saw a need for good children's programs. Much of the work and testing of the software was done on the Internet and utilized the contributions of talented single mothers.

Paint 'n' Play is the first product from his company, Funny Face Softbook Company Ltd.

June Campbell is the owner of Nightcats Multimedia Productions. You can reach her by e-mail at campbelj@istar.ca or by phoning 604-980-3219 during business hours. ♦

course. There's even a Web-phone area. Check it out at www.umn.edu/~amigos/Virtual/

Swedish: Still under construction, but *Net Guide Magazine* calls this site one of the 1,003 Best Free Things on the Web. The course outline

appears to be quite comprehensive and can be viewed at <http://www.sas.upenn.edu/~arubin/swedish.html>

Welsh: No leeks or dragons at Mark Nodine's site. Indeed to goodness, it's still

under construction. The emphasis is in developing conversational skills rather than understanding literary Welsh. Check it out at <http://www.cs.brown.edu/fun/welsh/Welsh.html>. ♦

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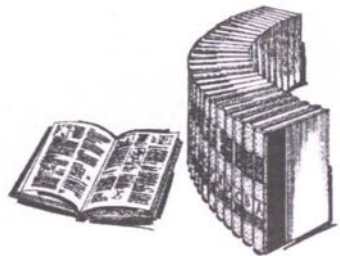
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Multimedia Encyclopedias: A Matter of Trust

by Cliff Cunningham

World Book 1997 Multimedia Encyclopedia, from IBM, for Win95/3.1. Price: \$60.

Encarta 97 Encyclopedia, from Microsoft, for Win95. Price: \$60.

Grolier Multimedia Encyclopedia, from Grolier, for Win95/3.1. Price: \$50.

Compton's Interactive Encyclopedia, 1997 Edition, from Compton's Home Library, for Win95/3.1. Price: \$45.

Merriam-Webster's Collegiate Dictionary, Deluxe Audio Edition, from Merriam-Webster, for Win95/3.1 and Mac. Price: \$49.95.

As we come to rely ever more heavily on multimedia encyclopedias for basic information and as teaching tools, the issue of trust comes to the fore. How reliable is the data we see on the computer screen? With this as a guiding principle, I delved into four encyclopedias and an online dictionary, all of which incorporate various multimedia elements.

Both Compton's and Grolier come on a single CD-ROM, while World Book and Encarta come on two discs. The dictionary I tested,

Merriam-Webster's Collegiate Dictionary, is also on a single disc. All four encyclopedias are newly revised 1997 releases. Britannica was not included because it is not a multimedia release.

The testing method I used was a simple one: take a subject in which I am an expert and analyze how well each of the four encyclopedias relayed useful, accurate, and up-to-date information. The subject I chose is asteroids, the rocky objects that mostly orbit the Sun between the planets Mars and Jupiter. As television addicts also know, thanks to a recent NBC asteroid movie and a National Geographic special, asteroids also hit Earth and were the likely cause of the dinosaur extinction.

I expected all the encyclopedias to be quite good, but I was dismayed to learn otherwise.

Inconsistent

For consistency, Compton's gets a failing grade. In the asteroid section, it claims that Ceres is 930 km in diameter (the value now believed to be fairly accurate), but in a section titled "Earth: Some facts about space," Ceres is

listed at 1,023 km across (a figure that comes from 1979 data!). In the article about Juno, it claims some 1,600 asteroids are known, but the asteroid section says at least 3,000 have been catalogued. Both are outdated—6,000 would be a better figure.

While Compton's does include a Web site link for more information on asteroids, the entry itself is the briefest and least useful of the four encyclopedias. Other articles are similarly brief; the one on Giuseppe Piazzi, who in 1801 discovered the first asteroid, is less than 10 words!

Grave Mistakes

Incredibly, the bibliography in the solar system article lists no books more recent than 1990, and it actually has the audacity to say the article was reviewed by an astronomer who has been dead since 1973! Dr. Helen Hogg, Canada's most famous astronomer, is listed as living, even though she died several years ago.

World Book is only a little better than Compton's. It too lists Hogg as living, although its entry on her life is much more

complete. As for Ceres, it adopts a diameter in between the figures listed in Compton's: 970 km. The number of known asteroids is given the appropriate figure of 6,000, but it presents both theories for the origin of asteroids as equally likely. In fact, one of the theories was discounted by most astronomers a century ago. Piazzi does not rate a separate article in World Book.

Especially disappointing from a multimedia standpoint is the fact that neither Compton's nor World Book contains any photographs of asteroids. Neither makes an attempt at incorporating anything but text and tables of data.

Another worrisome aspect of all the encyclopedias is that none of the "facts" are referenced. With the power of CD-ROMs, it should be a simple matter to link every pertinent scientific fact to the source being used, thus allowing students or researchers to check out or quote the source.

Encarta is even worse than Compton's. While the bibliography in Compton's is outdated, it is better than Encarta's, which lists no books under astronomy more recent than 1988. Here we find that Ceres has ballooned

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to 1,030 km (100 km larger than the real figure), but even more annoying is the entry on Ceres, which contains no data at all! It merely has a hyperlinked pointer to the asteroid article. This is especially curious, as other asteroids have separate articles with brief information. Encarta is the only one of the four to have no mention at all of Piazzi, but its article on Hogg does include the fact she died in 1993.

Encarta's asteroid article does have a nice

photo of the asteroid Ida, and its animated solar system exploration does a nice job of showing where the asteroid belt is located. Grolier also has a solar system animation, but it is not nearly as well developed as Encarta's.

Even so, Grolier makes better use of multimedia in its asteroid presentation. In addition to a color photo of Gaspia (Encarta's Ida shot is black and white), it has a montage showing Ida, Gaspia, a radar image of another asteroid,

and links to other montages of comets and meteorites.

Counting Asteroid Hits

By doing a word search on "asteroid," I found the following hits in the four CD-ROMs: Compton's (35), Grolier (26), Encarta (25), and World Book (10). Grolier wins in depth of knowledge, with such esoteric subjects as the three-body problem involving Trojan asteroids actually rating a separate article.

Unfortunately, they give an incorrect date for the discovery of the first Trojan asteroid. That, and Grolier's figure of 785 km for the diameter of Ceres, show it cannot be trusted on its facts.

This is especially strange as it provides a bibliography of four asteroid books, including *Introduction to Asteroids*, which I authored. In my book, Ceres is stated as having a diame-

Continued on page 34

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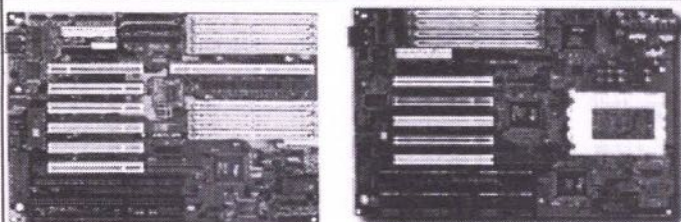
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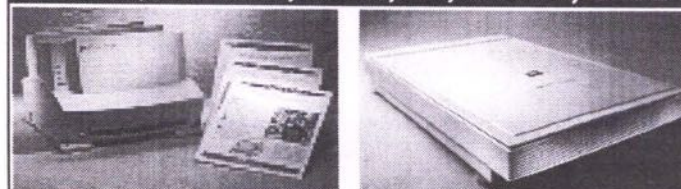


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Vancouver Web Site Wins **SUITE 101** Seven Canadian Internet Awards

BY JUNE CAMPBELL

Suite 101, from Vancouver's iFive Communications walked away with seven prizes at the Canadian Internet Awards event held in June. Suite 101 was awarded Best Internet Resource—Non-Technical, Best Tools and Utilities, Best Service to the Public, Best Development Team on Collaboration, Best Project or Pilot, Best Online Service, and Best Contribution to New Standards and Services.

The Canadian Internet Awards are a spin-off of Net '97, the Internet conference held in Halifax in June. Prior to the conference, Net surfers were invited to nominate Canadian sites; voting was done by email. The people behind Suite 101 were astonished when they received a message advising them that they had received nomination in 11 categories and that they "should consider sending someone to the conference because you're going to be taking home too many awards to be mailed!"

Since the conference, Suite 101 has also been rated Dr. Webster's Web Site of the Day, and was Yahoo Canada's Site of the Week, July 11-18.

According to Suite 101's Dean Minamimaye, who holds the title of special projects programmer/designer and web promotions (dean@suite101.com), Suite 101 is an excellent communication concept because it first builds community, and then builds a Web site around that community. "Suite 101 is unique in that we have recruited over 100 editors from all over the world to help us help everyone else. Each editor is an expert in his/her field. He/she lists the best sites he/she has found and writes a weekly article as well as moderating a discussion. Managing editors oversee the sites for each section, and copy editors keep a watchful eye for typos and spelling errors.

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Suite 101, which was developed by a six-person team, went online approximately one year ago. A newly revised version, offering both frames and no frames, debuts Aug. 6.

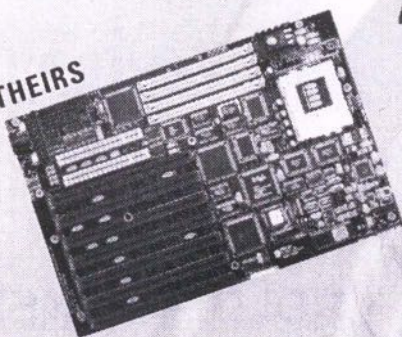
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June Campbell is the owner of Nightcats Multimedia Productions. You can reach her by email at campbelj@istar.ca or by phoning 604-980-3219 during business hours. ♦

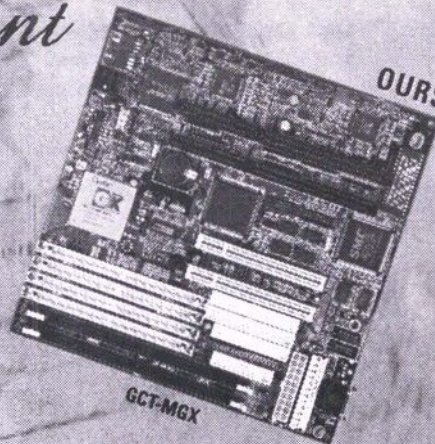
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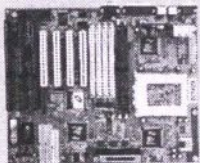


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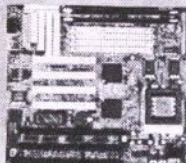


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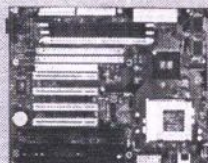
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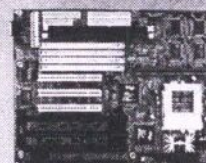
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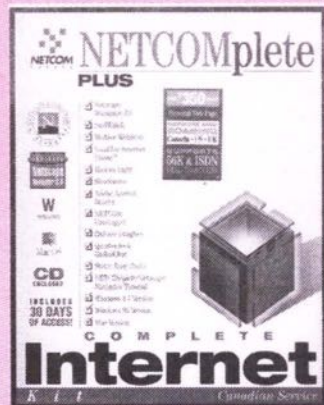
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Back to School Basics

Multimedia Systems for Student Size Budgets

by Lynn Greiner and Sandra Mingail

It's almost time to head back to school, and for students of all ages, thoughts must turn to the tools of the "trade." And more frequently, computing is taking its place next to the traditional readin', writin', and 'rithmetic as a basic skill.

Besides being cool toys, computers can be invaluable for learning. In conjunction with an online service (the Internet, or a commercial service such as CompuServe or America Online), your silicon pal can become a window to the wisdom—and stupidity—of the entire world.

We took a look at a litter of relatively inexpensive machines to gauge their suitability for students. We looked at the machine itself, its software bundle, and its connectivity, to see if the package offered is one that would enhance the learning process, as well as provide a bit of fun. Bear in mind that the best choice depends not only on the student's needs, but on the systems used or recommended by their school. If you have to hand in assignments based on Apple software, the sexiest PC on the planet will be totally useless!

We stuck to desktop systems for this roundup, although some universities are actually now requiring laptops. (Check *CP!* in a couple of months for a peek at the cream of the current mobile crop.) Here's what we found (in alphabetical order by manufacturer, except for the last two). All systems (except the Apple) come with Windows 95 preinstalled.

AST Adventure 430

This machine incorporates the following features: 166 MHz Intel Pentium Processor, 2 GB hard drive, 8x CD-ROM drive, 16 MB RAM, 16-bit audio with surround sound, 33.6Kbps modem, and 15-inch monitor. It has a Canadian street price of \$1,902.

Bundled software includes Corel WordPerfect 7 Suite, Intuit Quicken SE, and Mindscape Complete Reference Library, plus an entertainment trivia game by Berkeley Systems called You Don't Know Jack!, Microsoft Internet Explorer, and start-up software from America Online, CompuServe, Prodigy, and AT&T WorldNet.

WordPerfect and the Complete Reference Library are especially useful for high school students. The reference title incorporates 10 online books including a dictionary, almanac, book of quotations, and a legal dictionary. On the downside, the material is heavy on American content.

Setup was accomplished in approximately 15 minutes. Connections were clearly labeled on the back of the CPU. The keyboard has a comfortable touch—important if students are spending hours churning out a term paper.

There is little documentation provided for new users. The manual is rather cryptic and mainly presents the how-tos of installing boards, adding system memory, and setting jumpers. The hardware, though, was reliable in performance. Graphics are crisp and sound very respectable.

Compaq Presario 2120

This is a very basic machine that tucks all of its components into a small, flat black box (the only desktop model we saw): 8x CD-ROM drive, speakers, and so forth. It has a 150 MHz 586 processor with MediaGX, a 2 GB hard drive, 24 MB RAM, and a 33.6Kbps fax-modem. Performance is perky. The price is very reasonable at \$1,990.

It was simple to assemble—the hardest part was opening the boxes—and comes with a 14-inch monitor. The software bundle is a bit slim, offering Compton's Interactive Encyclopedia, Microsoft Works 4.0, Quicken SE, a trial version of Sidekick 95, and a couple of games. Online access is provided through Netscape Navigator, a signup for Juno Internet email, and the ever-present America Online.

At press time, Compaq announced that this model will be phased out over the next few months in favor of a slightly stripped-down version (less memory, smaller hard drive, faster processor) costing several hundred of dollars less.

Hewlett Packard Pavilion 7360

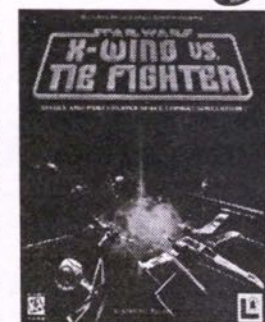
A pricier system than most we looked at, this lists for just over \$3,200. It's also loaded. It has a 200 MHz Pentium processor with MMX, 32 MB RAM, a 3.8 GB hard drive, 16x CD-ROM, 33.6Kbps DSVD data/fax/voice modem, and a pair of Altec-Lansing speakers that attach like ears to HP's multimedia monitors. As well as the standard ports, it has a USB (universal serial bus) connection, the future standard (according to the recently announced PC 98 spec) for attaching everything from monitors and keyboards to scanners.

Its keyboard has a full set of multimedia



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controls, as well as the usual typing keys. You can adjust speaker volume, use the telephony features, and even suspend the system by simply tapping one of these special keys.

The system functioned well, but seemed quite noisy. The hard drive rattled when active (a phenomenon I've noticed with several of the very large hard drives), and the CD-ROM drive revved up like a jet.

The software bundle is an eclectic mix of kids' educational titles such as Virgil Reality, Oregon Trail (a simulation game), Logic Quest, Great Math Adventure, Great Word Adventure, and Tuneland, and titles for adults or older students, such as Compton's Interactive Encyclopedia, Artrageous, an HP financial calculator, Quicken SE, Intuit Market Place, Tripmaker 97 SE, and Microsoft Works. There are also several games (including Whiplash and MechWarrior 2), the Billboard Music Guide, the Blockbuster Guide to Movies & Videos, telephony software, and, when you register your system, Sim City 2000. Connectivity is supplied through signups for America Online, Prodigy, CompuServe, and Internet providers Netcom and AT&T WorldNet.

HP has a simple interface called Personal Page that novices will enjoy (it talks to you as well as displaying icons and text), but experienced users will quickly abandon in favor of the normal Windows 95 shell.

IBM Aptiva E32

The Aptiva E32 is a \$2,999 166 MHz Pentium with a 3.2 GB hard drive, 32 MB RAM, 16x CD-ROM drive, 33.6Kbps data/fax-modem, microphone and stand, and 15-inch monitor. Its performance is brisk.

Its software bundle will mainly profit the older student, since it only includes productivity applications. You get Lotus Word Pro 96 (IBM owns Lotus, remember), Lotus 1-2-3 Release 5, Lotus Organizer 2.1, Internet connectivity through Netscape Navigator, Internet Explorer, and a signup for AT&T WorldNet, signups for CompuServe, America Online, and IBM Anti-Virus and PC Doctor for Windows.

For gamers, it actually has a DOS-mode games setting you can click on to restart the system with the requisite resources.

IPC CS MP-5166

This model offers a 200 MHz Intel Pentium Processor with MMX, 2.1 GB hard drive, 16x CD-ROM drive, 32 MB RAM, 32-bit audio, 33.6Kbps modem, 14-inch monitor, Microsoft Sidewinder Gamepad, and speaker phone. The Canadian street price for this system is \$2,397.

The bundle of software is small, but useful for students and includes Microsoft Works, Encarta 97, and the Magic School Bus Explores the Solar System, as well as several games.

NEC Ready 9710

This is a 166 MHz Pentium with MMX, 16 MB RAM, a 2.1 GB hard drive, and a 16x CD-ROM drive. It has a 3D graphics card with 2 MB video memory and MPEG decoder, and a 33.6Kbps data/fax/voice modem with software for fax and voice mail. Like other Ready machines we've tried, it's a solid performer,

Simpler Systems for Shrinking School Budgets

BY MEGAN JOHNSTON

The point at which smaller budgets and rising computer needs intersect has created a market for educational hardware manufacturers. In the Lower Mainland, two companies are marketing stripped-down, portable, low-cost notebook-like computers to the educational market. Both products can interface with desktop PCs and Macs, and are tough enough to be taken out on field trips. And, while not as sexy as some of their south-of-the-border peers—Apple's voluptuous eMate, for example—these simple systems appear to fill a need, while not emptying the coffers.

Laser PC5

Tandex Technologies (formerly VTech) in Richmond distributes the PC5, which has no moving parts—with the exception of the keyboard—and weighs less than 1 kg (2 lb.). It has an eight-line by 80-column LCD screen, that can be bumped up to four by 40 for special needs and visually impaired students. Also for handicapped users or novice typists, the full-size keyboard has optional "sticky" keys, allowing two-key commands to be activated one key at a time. The built-in software includes a word processor, spell checker, spreadsheet, database, telephone directory, calculator, typing tutorial, and utilities. It comes standard with an interface cable and software for transferring data to a desktop PC. It can store the equivalent of 100 pages of text. Optional modules for the proprietary expansion port include a modem, thesaurus, and in September, a text-to-speech module. The typical life expectancy for two AA alkaline batteries is 30 hours, and eight for the rechargeable nickel metal hydride pack. An optional docking station can be used to store and recharge multiple units.

DreamWriter

Maple Ridge-based NTS Computer Systems has created a similar line of computers as well as a series of peripherals with IrDa-standard infrared connectivity. The line includes the DreamWriter IR (infrared) and the DreamWriter Flip computers; RoL-A-Lab docking stations for storing and recharging multiple units; a 3.5-inch 1.44 MB external floppy disk drive with infrared capability; the DreamJet adapter, which allows non-IrDa peripherals to communicate using infrared; and the DreamLink E-mail Server, which provides wireless email communication within a school and via the Internet through an infrared port in each classroom.

Like the Laser PC5, the DreamWriter computers are small—weighing only 1.12 kg (2.5 lb.)—and simple, and include word processing and spell checking applications with thesaurus and grammar check, organizer, scheduler, typing tutor, calculator. They can store 120 pages of text, which can be transferred wirelessly to a PC or saved to its standard PC MCIA memory card.

Contact the companies for educational prices. Tandex, 10-3850 Jacombs Rd. Tel: 276-0588. NTS, Tel: 800-663-7163, or 604-465-1040. Email: nts@nts.dreamwriter.com Web site: <http://nts.dreamwriter.com> ♦

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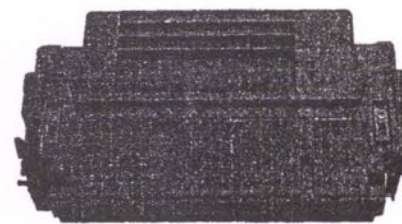


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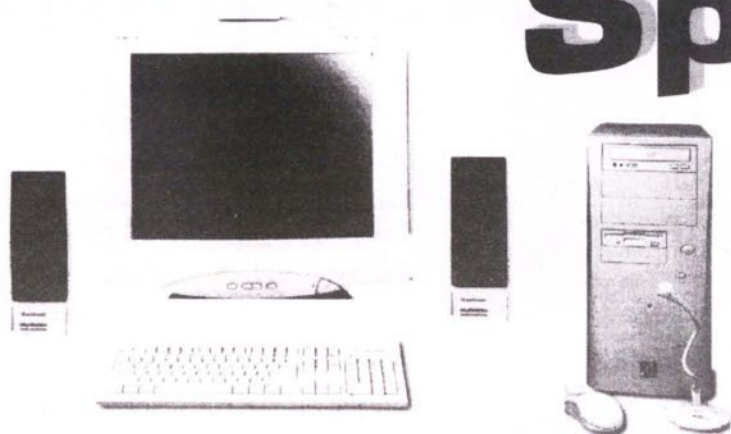
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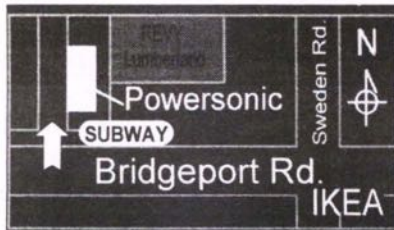
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Back to School

Continued from page 21

and a reasonable value at about \$2,500, including 14-inch monitor.

The titles in the software bundle are primarily useful for older students. You get Microsoft Works 4.0, Microsoft Publisher, Microsoft Encarta 96, and Microsoft Money, plus some entertainment titles, Blockbuster Guide to Movies & Videos, and Pod. For connectivity, there's America Online, CompuServe, AT&T WorldNet sign-up, WebWay connection Manager, Internet Explorer, and Starfish Internet Utilities. McAfee VirusScan 95 and WebScan, The Family Doctor, VoiceView TalkShop, and a clever MMX-enabled history called Timetables of Technology round out the package.

Packard Bell 640

The 640 incorporates the following features: 166 MHz Intel Pentium Processor, 1.6 GB hard drive, 16x CD-ROM drive, 16 MB RAM, 16-bit audio with surround sound, 33.6 Kbps modem, and monitor. The Canadian street price for this system is \$2,099.

Bundled software includes Corel WordPerfect 7, Microsoft Works 4.0a, and startup software from America Online, Prodigy, and ISP Sprynet, CommCentral software—which features answering machine, fax, and voice mail capabilities and a demo

version of Internet Phone software from VocalTec.

New users will likely enjoy the graphical user interface, Packard Bell Navigator, created to guide users around their computer—something like the ill-fated Microsoft Bob. After a while, though, computer-savvy students will probably prefer to interface directly with the Windows desktop.

Documentation is clear and easy to read. There's also a program that allows users to connect to Packard Bell hardware technical support via modem. Technicians can then see your system and walk you through solutions to problems. Direct connections also exist to a Packard Bell BBS and online support service.

Prepare to spend a bit of time setting up this system. It took us about 35 minutes. Since the audio speakers need to be mounted on the side of the screen, you'll need a screwdriver and some patience to figure this one out. Connections are color-coded to reduce guessing on what goes where.

The keyboard is rather noisy and not that well padded. Graphics are clear and the side-mounted speakers deliver excellent sound. The CPU itself is rather noisy—we preferred to move it out of the way, under a table to reduce the noise factor.

Apple Computer

Apple was not able to supply us with a machine in order to conduct a hands-on

review. The company did, however, provide us with product specs on its student/educator model, the Power Macintosh 6500/225. Features include a 225 MHz PowerPC 603e RISC processor, 16-bit CD-quality stereo

sound with SRS surround sound, a 33.6Kbps modem with telephony, ATI RAGE II 64-bit graphics and multimedia accelerator chip, a

Continued on page 26

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Western Digital:EIDE 2.1/2.5/3.1/4.0
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Fujitsu EIDE:1.7/2.1/2.5G \$219/235/255

Back to School SALE catch up!

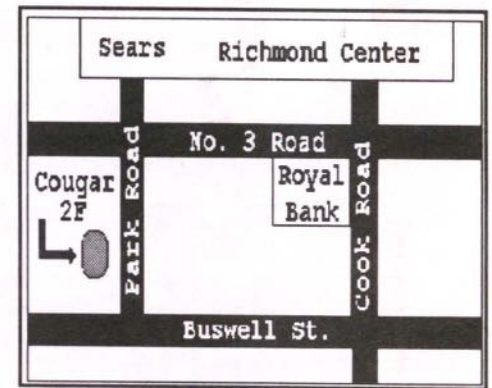
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Quantum FB ST 3.2GB/4.3GB		309/415
W.D. 1.6GB/2.1GB/2.5GB	235/260/280	
W.D. 3.1GB/4.1GB		315/390
Maxtor 1.7GB/2.1GB		235/266
Maxtor 2.5GB/3.5GB		278/322
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168 Pin 16/32 MB SDRAM		Call
Intel 133/150/166		Call
Intel MMX 166/200/233		Call

CD-ROM		
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Hitachi 16X		113
Acer 16X/18X/20X	100/104/120	
Mitsumi 16X		117
Tatung 8X/10X/12X	89/92/104	
Toshiba 16X/24X		118/148

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SB 16/32/64 PnP		60/105/120
SB AWE 32/64 PnP		115/135
Acer FX-3D/AW32 Pro		29/78

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USR 33.6 Fax/Voice Int (OEM)		115/135
USR 56K Fax/Voice Int (OEM)		200/225
USR 33.6 Fax/Voice Ext (Retail)		195/225
USR 56K Fax/Voice Ext (Retail)		265/289
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Supra 33.6/56K Int Voice (OEM)		88/170
Supra Video Phone Kit 3000		400
Zotrix 33.6 Int Voice Fax Modem		68

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Canon BJC 4200/4550		285/560
Epson Stylus 400/600/800		270/385/559
HP Deskjet		
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HP Deskjet		
870Cxi/1000C/1600C		518/650/1850
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2030/2050/2070		249/279/499

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HP LaserJet 5/5N/5M		1400/1780/2100
HP LaserJet 4V/4MV		2550/3650
HP LaserJet 5Si/5SiNX/5SiMX3400/3750/4800		
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16X Speed EIDE CD-ROM Drive
Acer FX-3D 16 PnP Sound Card
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Pentium-233mmx \$1800	

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High Quality Amp. Stereo Speakers

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AcerNote	384	150MMX	32MB	2.0GB	10X	12.1TFT	\$4360
ThinkPad	380D	P150	14MB	1.08GB	8X	12.1DSTN	\$3300
ThinkPad	380D	150MMX	16MB	2.1GB	8X	12.1TFT	\$5250
ThinkPad	760XD	166MMX	32MB	3.0GB	8X	12.1TFT	\$7000

Brother HL730DX/HL760DX	478/570
Brother HL1060/HL1660	880/1590
Brother MFC	
1950MC/4550/6550MC	600/1150/1400

Mainboard (MMX Ready)

ASUS VX97 (VX)512K	135
ASUS T2P4 (HX) 512K	190
ASUS TX97E (TX) 512K	210
Acer AP5VM (VX) 512K	145
Acer AP5TX (TX) 512K	185
Acer AP67 (SIS) 512K	100
HT M537 (VX Pro) 512K	82
HT M538 (VX) 512K	99
HT M550 (TX) 512K	122

Scanner

AcerScan 300F /610+	300/480
HP Scanjet 5S/5P/4C	335/510/998

SoftWare (with Systems)		
Windows 95 (R2)/C Win95		120/160
Twinbridge for Win95		260
Lotus SmartSuit/WordPerfect Suite		60/68

Video Card

CL 5446 PCI (MPEG) 1M/2M	30/40
S3 Trio64 1MB/2MB	40/50
S3 Virge 3D 2M/4M	50/70
ATI 3D Xpn 2MB	75
ATI 3D Xpn+ 2M/4M	125/150
ATI 3D Xpn+ PC2TV 2M/4M	145/165
ATI 3D ProTurbo/PC2V 4M/8M	205/275
ATI all-in wonder 2M/4M	320/345
Diamond 3D 2M/4M DRAM	102/116
Diamond 3D 2M/4M VRAM	155/210
Matrox Myst 3D 2M/4M SRAM	125/157

Matrox Mill. 3D 2M/4M WRAM	185/245
Matrox Mii II 4M/8M (Retail)	315/425

Monitor

Proview 14/15/17	205/285/550
AcerView 15 54e/56e	325/375
AcerView 17 76ie/78ie	640/670
ADI 15 4V/17 5V/17 5G	430/705/900
Sony 15 100SX/100SF	533/610
Panasonic S15/P15/PM15	394/431/478
Panasonic S17/P17/PM17	783/941/836
Samsung 15 500S/500B	400/430
Samsung 17 700S/700B	765/795
NEC 15 M500/XV15+	525/550
NEC 17 M700/XV17+	1070/975
ViewSonic 15GA/17GA	548/884

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1.44MB Floppy Drive
ATI Mach64 Video Card w/2M DRAM
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Pentium 150/166 MHz\$269/299
MMX 166/200/233.....\$419/519/719
Pentium200/Pro200.....\$459/899
PentiumII 233/266 MHz.....\$1349/1549
686 P150+/166+/200+...\$179/209/259
AMD K5 75/100.....\$139/169
AMD K6 166/200.....\$399/469

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1.6GB EIDE Hard Drive\$229
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2.5GB EIDE Hard Drive.....\$279
3.1GB EIDE Hard Drive.....\$319
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HP LaserJet 4V/4M+\$2489/\$2610
HP 4MV/1600C.....\$3819/\$1819
HP 6P/6MP.....\$949/\$1179
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Brother HL-730, 600dpi, 6ppm.....\$439
Brother HL-760, 1200dpi, 6ppm\$539
Epson Stylus 400/600/800.....\$279/\$389/\$539
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Adaptec 2940 SCSI Ctrl\$235
Adaptec 2940W SCSI Ctrl\$269
Adaptec 3940 SCSI Ctrl.....\$509

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Zip 100MB/Jaz 1GB Disk.....\$17/\$119
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Colorado T3000 Int/Ext.....\$259/\$309
Iomega Ditto 2.0GB Int/Ext\$199/\$249

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Acer 14"/15"/17"\$249/\$349/\$659
MAG 15" T/DJ530\$469/\$469
MAG 17" DJ700/700T.....\$795/\$859
ADI 4V 15"/5V 17"\$439/709
ViewSonic 15"GS/17"GS.....\$489/\$799
NEC 15" C500/M500.....\$479/\$519
NEC 17XV+/P750.....\$969/\$1229
NEC 17" M700.....\$1029
SONY 100Sx/100 Sf.....\$519/\$599
SONY 200Sx/200 Sf/SE2T.....\$889/\$1069/\$1299

Video Cards

Cirrus Logic VLB/PCI, 1M\$59/\$28
S3 Trio 64, 1M/2M D\$39/\$55
S3 Virge 3D, 2M/4M.....\$55/\$65
ATI Mach 64, 1M/2M D\$63/\$75
ATI 3D Xpression, 2M EDO RAM.....\$79
ATI 3D+, 2M/4M SDRAM.....\$129/\$149
ATI 3D+, PC/TV, 2M/4M SDRAM.....\$139/\$169
ATI 3D+, ProTurbo, PC/TV, 4M/8M.....\$199/\$269
ATI Mach 64, 2M/4M V\$209/\$299
ATI TV Tuner Card/All-in-one 2M.....\$129/\$309
Diamond SII 64, 1M/2M D\$85/\$99
Diamond SII 64, 2M/4M V\$199/\$259
Diamond 3D 2M EDO RAM.....\$99
Diamond Monster 3D 4M EDO.....\$289
Matrox Millenia 2M/4M W.....\$189/\$249
Matrox Mystique 3D 2M/4M.....\$129/\$159
Millenia TV Tuner/Video Capture.....\$169/\$399

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Panasonic CD-ROM 12x/24x.....\$95/\$149
Mitsumi CD-ROM 12x/16x.....\$95/\$109
Toshiba CD-ROM 12x/16x.....\$99/\$119
Sony CD-ROM 12x/16x.....\$99/\$119
Pioneer 12x SCSI CD-ROM.....\$139
NEC 6x4 CD Changer.....\$129
HP Surestore 6020i CD-Writer.....\$589
Sony 926S CD-Writer/+software.....\$429/499
Blank recordable CD.....\$6

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USR 33.6/56K Int. Fax/Data.....\$125/\$209
USR 33.6/56K Int. Voice.....\$135/\$229
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Back to School*Continued from page 23*

3.0 GB hard-disk drive, 12x CD-ROM drive, and 32 MB RAM. The machine comes with a 15-inch monitor. Canadian street price for this system is \$2,800.

The preinstalled software bundle provides many useful titles for the elementary and junior-high set, including Mayo Clinic Family Health by IVI Publishing, Grolier's Multimedia Encyclopedia, 3D Atlas by Electronic Arts, Amazing Writing Machine by Broderbund, Thinkin' Things 3 by Edmark, American

Heritage Dictionary by Softkey, Where in the USA is Carmen Sandiego by Broderbund, Kid Pix by Broderbund, and Clarisworks 4.0. Several games, a Web-page authoring tool, Internet connection set, and Internet blocking software round out Apple's comprehensive software bundle.

Samtack Sequoia PT-S200

Samtack was also unable to supply a machine for review. It did provide us with product specs on its student model, the Sequoia PT-S200. Features include a 200 MHz processor, Creative Labs 3D sound card, a

33.6Kbps modem with voice, a 2.5 GB hard-disk drive, 16x CD-ROM drive, and 32 MB EDO RAM. It comes with a 15-inch Imago monitor and 80 Watt speakers. This model's \$1,999 price tag places it well within the student market.

The package includes MS Internet Explorer and Net Meeting, as well as some games.

Editor's Choice awards

For Editor's Choice, we've selected the NEC Ready. Its software bundle, although most suitable for older students, contains a good mix, and the system itself is powerful and nicely configured. Combine that with good connectivity and

a reasonable price, and you've got a winner.

For more information contact:

Apple: 800-263-3394. <http://www.apple.ca>

AST: 800-876-4278. <http://www.ast.com>

Compaq: 800-567-1616.

<http://www.compaq.ca>

Hewlett Packard: 905-206-4725.

<http://www.hp.com>

IBM: 800-267-9077, ext. 1280.


<http://www.can.ibm.com>

IPC: 888-446-4472. <http://www.ipc.ca>


NEC: 800-632-4554. <http://www.nec.com>

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Pentium 66 M/b & CPU	\$139

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Game Pads	fr. \$9 ⁹⁵	1MB ISA Video Cards	\$39
Keyboards	\$19 ⁹⁵	New Software Just Arrived	

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Used Computers an Option for Budget Conscious

There's no shortage of used, refurbished, and end-of-line computers and accessories, which is good news for students who are heading back to school this fall on a tight budget. The rapid evolution of computer technology has created an unprecedented supply of used computers, as more individuals and companies sell, trade, or donate old models. Some outlets specialize in brand-name products, but many outlets sell a myriad of different brand names and accessories.

The following is a sampling of stores in the Lower Mainland that sell used computers and accessories:

B&C Computers
6919 Russell Ave., Burnaby
Phone: 437-6919. Specialty: PCs, some Macs.

Benchmark Computers
2627 Kingsway, Vancouver
Phone: 451-5333.
Specialty: PCs and some Mac accessories

Canadian PC Exchange
Phone: 473-7055

Computer Clearance Warehouse
3083 Grandview Highway, Vancouver
Phone: 437-5551. Specialty: PCs and Macs

Computer Lovers Centre
Unit #2-555 Clarke Road, Coquitlam
Phone: 931-8368.
Specialty: PCs, some Mac parts

Computers N Computers
3474 W. Broadway, Vancouver
Phone: 733-5363. Specialty: PCs, Macs

Encore Computers
119 Lonsdale Ave., North Vancouver
Phone: 990-0547. Specialty: PCs, Macs

Games Lovers Library
140-9020 Capstan Way, Richmond
Phone: 270-7898
Specialty: PCs, some Mac parts

Golden Top Computer
10269-128th St., Surrey
Phone: 581-4698. Specialty: PCs, some Macs

J & G Consignment Warehouse
1919 W. 4th Ave., Vancouver
Phone: 733-9166. Specialty: PCs, Macs

Jesco Audio/Video Ltd.
1232 W. Broadway, Vancouver
Phone: 733-4409. Specialty: PCs

New Web Computers
8-2900 Smith St., Richmond
Phone: 276-2508
Specialty: Macs, PCs

PC Galore Consignment Ltd.
2744 W. 4th Ave., Vancouver
Phone: 732-7816. Specialty: PCs, Macs

106-9780 Cambie Rd., Richmond
Phone: 303-7331. Specialty: PCs, Macs

PC People Sales and Service
3399 Kingsway, Vancouver
Phone: 439-2588. Specialty: PCs

PC Spectrum
230-2182 W. 12th., Vancouver
Phone: 879-7815. Specialty: PCs

POL Electronics
8452 Granville St., Vancouver
Phone: 264-8808. Specialty: PCs

Polsons
458 W. Broadway, Vancouver
Phone: 879-0631. Specialty: PCs

P.C. Place

Unit #5-8145-130th St., Surrey
Phone: 572-8324. Specialty: PCs, Macs

Rawn's Buy & Sell Network
5684 Dorset, Burnaby

Phone: 878-1181, 434-8500

Reality Computer Brokers
307-130 E 15th Ave., Vancouver
Phone: 872-4911

UBC Surplus Equipment
Recycling Facility (SERF)
2352 Health Science Mall
Phone: 822-2813. Specialty: All types.

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- ✓ Mid-Tower Case / 230 W Power
- ✓ 104 Key Win95 Keyboard
- ✓ Qtronix Lynx90 2B Mouse

Sale Price: **\$1,015**

- *P120 / P150 / P166 / P200
- \$975 / 1045 / 1105 / 1175
- *Pentium166 MMX: \$1,205
- *Pentium200 MMX: \$1,485

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- 14" → 15" / 17" Monitor \$90 / 300
- 33.6 Fax/Data/Voice Modem \$90

Intel Pentium-166

- ✓ Pentium-166MHz CPU
- ✓ Triton III Chipset/256k Pipeline Cache
- ✓ 16MB EDO 72pin RAM
- ✓ 1.6 GB EIDE (mode4) Hard Drive
- ✓ PCI SVGA 2MB Video Card
- ✓ 1.44 MB 3.5" Floppy Drive
- ✓ 15" NI L/R SVGA Monitor
- ✓ Mid-Tower Case / 230 W Power
- ✓ 12x EIDE CD-ROM Drive
- ✓ Sound Blaster 16 PnP
- ✓ 60W Stereo Speaker
- ✓ 104 Key Win95 Keyboard
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What Took So Long?



**Mac
Rant**

David Rosen

Less than 18 months after Gil Amelio took charge of Apple, the self-appointed turnaround specialist is out of a job. Amelio was the latest—and arguably the most inadequate—of Apple's recent leaders. The real question is: What took so long for the board to act?

Everyone agreed Amelio's formal management style clashed with Apple's corporate culture. For example, during an interview shortly after taking the helm at Apple, Amelio

explained that wearing a tie around Apple's headquarters campus helped set him apart. Woohoo: feel the excitement!

Besides the tie, more significant warning signs soon became clear. A book Amelio co-authored on corporate turnarounds, published within days of his taking charge at Apple, was a complete snooze-fest. Long-time *MacRant* readers may recall our fascination with Amelio's corporate jet, paid for by Apple. When the company's travel policy was revised about a year ago requiring coach travel

on long-haul plane flights, engineers who have to shuttle back and forth between Apple's Cupertino headquarters and manufacturing plants in Asia and Europe quickly got the message. This was the last straw for many long-time employees. After all, how many 12-hour flights in coach do you have to endure before thinking twice about coming into work in the morning?

Apple continued to stumble. Its worldwide share of the personal-computer market dwindled and the company laid off thousands of workers, many going to rivals and competitors. Apple also lost many senior managers and posted net losses of \$1.6 billion over the six quarters. As we went to press, Apple's stock had dipped to a 12-year low, well under \$14. Hardly inspiring.

Apple's board has already appointed a selection committee to find a new chief executive officer, and a decision is expected in two months. Until a new chief executive is hired, Fred Anderson, a highly regarded financial executive whom Amelio brought in to be Apple's chief financial officer, will be in charge of the company.

Apple's New Inkjets

Technology-wise, Apple still continues to make great products. This month, for example, comes news of three new color inkjet printers: the entry-level Color StyleWriter 4100; the mid-range Color StyleWriter 4500 (providing Mac customers with photo-realistic color); and the Color StyleWriter 6500 (designed for high-end inkjet printing for both Mac OS and Windows customers). Apple also introduced the StyleWriter EtherTalk Adapter II, a printer networking device that lets Mac OS customers share Apple's color inkjet printers on an EtherTalk network.

The Color StyleWriter 4100 and Color StyleWriter 4500 have approximate retail

prices of \$350 and \$490 respectively. The Color StyleWriter 6500 carries an estimated retail price of \$675. The StyleWriter EtherTalk Adapter II is expected to be available later this in August for about \$260.

Making Sense of the Ads

Finally, there's news that Apple's advertising can get back on track. David Roman, Apple's vice-president of Advertising & Brand Communications announced that Apple's incumbent ad agency, BBDO, would be invited to participate in an agency account review, effectively telling BBDO that it would have to compete with everyone else to win Apple's advertising business.

Miffed at this news, BBDO announced the same day it would resign from the Apple account. In its written press release, BBDO said it had created award-winning advertising for Apple for 12 years, constituting the longest-standing major agency partnership in the computer industry. The resignation will take effect Sept. 30, 1997.

BBDO turned down the invitation to the IBM account review two years ago and has received significant recognition for campaigns created for Apple. Just last year, the agency received another series of advertising industry awards. In 1995, Apple's branding work was inducted into the American Marketing Association Hall of Fame. Now, awards are great for an advertising company, but not necessarily great for the client. Long-time readers will recall the Ranting One's continued ridicule of Apple's half-witted ad campaigns, such as the talking dog or "tough questions" spots. Let's see if the new firm can work smarter—and let everyone know Apple is still in the game.

Got the inside gossip? Send your rumors, tips, and comments to MacGuy@tcpon.com. Please note that due to the volume of mail, individual questions cannot be answered. ♦

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Kevin Linfield

Summer is upon us, and while the heat and humidity hit us hard, why not check out some of the hot new OS/2 software releases. There are a number of new or updated products available to dedicated OS/2 users, and many of them are available either free of charge, for beta testing, or as a demonstration version.

Always a word to the wise—if you install beta software on your machine, don't expect perfection.

If you have time to kill, I strongly recommend trying out the StarOffice beta. I'm certain you will be as impressed with it as I am (see below).

Be an Acrobat

Adobe has finally released the finished version of their Adobe Acrobat Reader for OS/2. Acrobat Reader allows users to view PDF files created with Adobe Acrobat, a popular document publishing format. Available both as a

Netscape/2 plug-in or as a standalone application, download a free copy from <http://www.adobe.com/acrobat>. Note that it requires OS/2 Warp 3.0 with Fixpak 26 or later.

Super Graphics

TrueSpectra Inc. of Toronto is now shipping the enhanced version of Photo>Graphics for OS/2. Photo>Graphics Pro 2.0 features support for additional graphics file formats, TWAIN for OS/2 scanner device drivers, optimized Postscript printing, new drawing tools, additional image effects, and a royalty-free image and clipboard library. Suggested retail price is US\$249.95, but owners of earlier versions of Photo>Graphics can upgrade for US\$99.95 until Aug. 31. Contact <http://www.truespectra.com> or call 416-224-0309 for details.

Resop's Fables

Looking for an educational and fun gift for young children? Take a look at QVision Inc's Aesop's Fables Volume 1. This CD-ROM, with native versions for OS/2 and Windows, features 40 classic fables and original artwork for

US\$17.95. Download a demo from <http://www.qvision.net> or email sales@qvision.net for more information.

Zip Me Up

PKWare have released an upgraded version of PKZIP for OS/2. Version 2.5 features DOS V2.04g compatible compression, the ability to create OS/2 self-extracting archives, the ability to span files across multiple floppies, storage of extended-attribute information, and long file-name support. Released as shareware, download a copy from <http://www.pkware.com/pkos2250.html>

Free Email Client!

In order to attract users to its upcoming Java email client, InnoVal Systems Solutions has released a freeware version of its popular Post Road Mailer email client. Identical to the commercial Pro Edition, release 2.5 is not restricted in any way. Register for a free copy at <http://www.innoval.com/free> or call 914-835-3838. I am now running this product at home and at work and am quite pleased with it. It supports multiple in-boxes, file attachments, and much more.

New News Client

Panacea Software has announced ProNews/2. This full-featured Usenet news-group client features filtering, smart decoding, ROT13 support, MIME, and UUdecoding. In open beta testing as I write this, you can obtain more information from <http://www.program.com/panacea>.

Star Office 4.0 Beta

Will this product ever see the shores of North America? Star Division's Office Suite (word processor, spreadsheet, database, charting application, personal information manager, et al) has been tantalizing us for years. I have been waiting for this best-selling European product to be sold here.

Now, with version 4.0 entering beta testing, I want this product! Anyone can download the OS/2 beta version (over 40 MB compressed!) from <ftp://192.41.15.223/pub/so4/os2/01/beta/> but note it expires at the end of August. Please Santa, I've been a good boy...

SmartSuite 97 Beta

Although it hasn't entered public beta yet, Lotus has started showing off its SmartSuite 97 for OS/2. At Comdex Spring in Atlanta, Lotus

Continued on page 34

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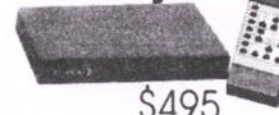


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Online Grocery Shopping Coming to B.C.

By June Campbell



Stria Communications, Canada's first and leading utilizer of Internet commerce has recently opened an office in Vancouver with expectations of making online grocery shopping available to B.C. consumers.

"We have been in the Internet commerce business for over two years and launched Canada's first online grocery chain. In addition to this, we have set up many online store fronts, and have done work in the area of transactional communities, for consumers and business to business applications," says Sandy Fleischer from the Stria's Vancouver office.

"We are bringing a chain of grocery stores online on Vancouver Island, and I am currently negotiating with some stores in Vancouver and other areas of B.C. Everybody is talking about Internet commerce and we are one of the few companies [actually doing it]. I believe that Stria can help interested consumers and corporations see beyond the hype of the Internet and electronic commerce."

Marketing director and founder, Bob MacKalski says that when Stria zeroed in on the food industry by signing up Food Fair in Winnipeg, the company became the first to sell online groceries over the Internet. Food Fair now boasts over 1,500 online consumers and has another 1,300 on its mailing list.

Food Fair customers select items using a Shopping Cart type feature. A "save list" option allows them to save and reuse their shopping lists. Once the list is completed, the customer confirms the order, and may opt to print out the form to be kept as a receipt. The approved list is sent to a server in Montreal, where the customer's postal code is noted and the order is forwarded via email to the Food Fair nearest the customer. The store confirms the order by telephone, packs the items and delivers if required.

Payment may be done online via the encrypted Web site, or by cash or cheque upon delivery or pickup. Orders average around \$100, with a \$700 order being the largest delivery to a private household.

The service is most heavily used in winter months, and has proven particularly popular with disabled customers and senior citizens. Isolated communities in the Canada's north have also taken advantage of the service, ordering online in quantity and paying air freight charges for delivery.

On Aug. 21, Food Fair and Stria will celebrate their first year of online shopping. MacKalski declined to provide details regarding B.C. plans, but suggested British Columbians watch for an announcement in November.

For more information, check out Stria's Web site at <http://www.stria.ca> or send email to sandy@stria.ca.

June Campbell is the owner of Nightcats Multimedia Productions. You can reach her by email at campbellj@istar.ca or by phoning 604-980-3219 during business hours. ♦

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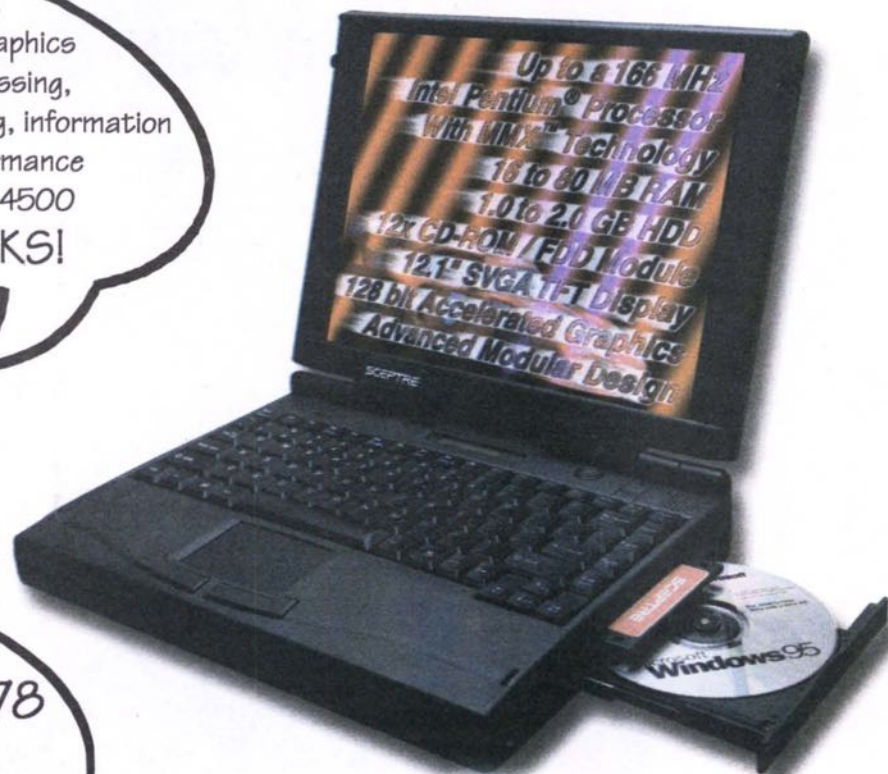
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Symantec Adds Lustre to Telephony Gem with WinFax Pro 8.0

BY S. J. ROSS

WinFax Pro 8.0,
From Symantec Corporation, for Windows
95/Windows NT 3.51 or 4.0. Estimated retail
price: \$129

The two crown jewels of the Symantec

Corporation are Norton Utilities and WinFax. In June, the company released an upgraded and polished version of the latter, WinFax Pro 8.0, which is a 32-bit fax and telephony program.

Historically a fine product, WinFax continues to improve with a variety of new features. For example, WinFax now supports dual modems, providing a range of settings—from send and receive options to dialing properties—for each.

You can also send and track multiple Internet faxes, can fax grayscale and color documents, such as photographs and clip art, and can define two letterhead styles to merge with WinFax-originated faxes.

The handiest upgrade is the controller, a Windows taskbar icon that changes to reflect the status of faxes and messages. With just a mouse click, the controller allows you to quickly access some of the more frequently required WinFax options, such as fax send and receive, without launching the entire program.

The phonebook has been expanded to allow you to include basic PIM (personal information manager) information, such as address and notes, and you can create folders that allow you to group fax recipients into convenient categories.

If you send periodic status reports, WinFax allows you to schedule a recurring fax so it is transmitted either indefinitely or for a defined time frame. But you must remember to update your attached file prior to transmission or WinFax will automatically send the original file to your recipient.

For those who require hard-copy records, WinFax now provides paper fax confirmations that you can personalize to include date, time, fax number, number of pages, and billing code.

Get bent

WinFax has always been a fairly flexible program—allowing you to alter a range of options to suit your individual needs—and with this version, WinFax incorporates even more flexibility. You can customize the toolbar, change your expanded views of outgoing faxes, and configure your incoming fax options.

WinFax also supports drag and drop of messages, allows you to use the annotation layer to complete faxed forms and highlight selected text, permits you to use old faxes as the basis for new faxes, and provides a fax cover-page wizard.

The cleverest feature of WinFax is TalkWorks, a voice-mail system introduced in the previous version. TalkWorks allows you to customize a variety of features, including playback volume and speed, provides a mailbox wizard to set up your TalkWorks answering machine, allows you to create a fax-on-demand system, and, if you have a sound card and microphone, permits you to even record messages to yourself.

But beware—some of WinFax's features (such as TalkWorks) are only available with certain fax modems.

Contact Symantec directly to learn if your existing modem is compatible.

For more details, point your browser to the Symantec Web site at <http://www.symantec.com>

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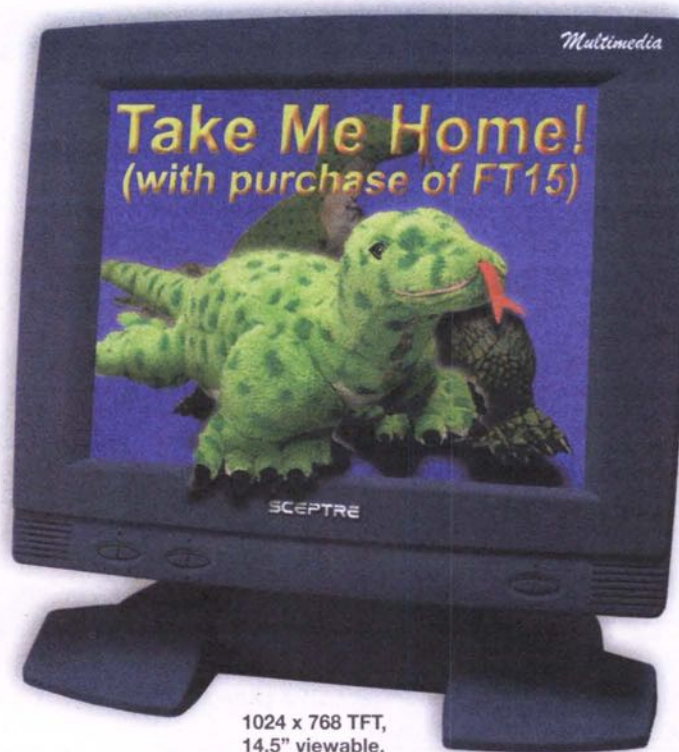
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Encyclopedias

Continued from page 17

ter of 932 km. Perhaps Grolier should read its own sources a bit more carefully.

To those who suggest that testing CD-ROM encyclopedias on a scientific subject is not fair, I did other tests on subjects as diverse as gemstones and American music. For example, I wanted to find out something about Ruth Etting, dubbed in the 1920s "America's record-

ing sweetheart" and the subject of a Doris Day movie decades later. None of the four even mentioned her.

Dictionary delights

After the disappointment of the encyclope-

dias, the Merriam-Webster Collegiate Dictionary was delightful. This audio edition (version 1.5) lets you hear the pronunciation of words, some with female and some with male voices. It also includes 1,000 color illustrations and 25 tables. However, while extensive, it is hardly comprehensive.

It does include some modern slang, such as "dis" (listed as originating in 1986), but it does not include phaser, a word that has entered the mainstream via *Star Trek* since 1966. Technical words are also spotty; in the field of mineralogy, for example, I failed to find the words lodranite, forsterite, and enstatite, all of which are in my asteroid book.

While all the encyclopedias have fine points in their favor (Compton's, for example, has a fantastic interactive planetarium where you can explore the constellations of the sky), none is wholly reliable. My best advice is to use them as a starting point for basic information, but hit the books in the library for in-depth information that can be cross-checked for accuracy.

Cliff Cunningham, a graduate of the University of Waterloo, is one of only a dozen living Canadians who has had an asteroid named in his honor. You can contact him at prayers@primenet.com ♦

Summer Software

Continued from page 30

demonstrated new OS/2-native versions of Approach, Organizer, and 1-2-3. I suspect we'll see shipping code around the same time SmartSuite 98 for Windows is released. Such is life.

Hot Summer Rumor

The hot rumor for the month involves Netscape Communicator for OS/2. We've been told there will be a public beta and the product will be functionally equivalent to the 32-bit Windows version. We've also been told that, although it is being co-developed by Netscape and IBM, it will be distributed and supported only by IBM.

But gossip on Netscape and IBM's relationship would make it appear that all is not well. Rumor has it that IBM wants to ship Navigator 4.0 without the rest of the Communicator package (i.e., just the Web browser), because Lotus Domino is similar in many functions. Stay tuned for more information.

Freeware of the month

POP3Spy 1.0 is a small program that checks your email at a user-specified time interval and informs you if you have mail by changing colour, changing icon, playing a tune, and even launching your email client if you like. I tested it with Warp 3 Connect and it works like a charm. Download a copy from <http://www.dateline.ch/~rch> or get it from Hobbes.

Kevin Linfield is a Toronto-based consultant and freelance writer. He can be reached via email at linfield@torfree.net ♦

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You may have heard that the international 56K modem standard hasn't yet been defined (expected in 1998). That's why we're offering a no-risk guarantee of a free upgrade to make your modem meet this new standard after it's approved. And since x2 uses DSP Solutions technology from Texas Instruments, it can easily be software-upgraded to receive future performance enhancements as they're developed.

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And again, if you're not satisfied with your U.S. Robotics x2 Technology 56K modem, simply return it within 30 days of purchase, along with dated receipt, to the store or mail order reseller where you bought it for a full refund.

This offer replaces all other preceding x2 offers for Sportster and Courier desktop modems.

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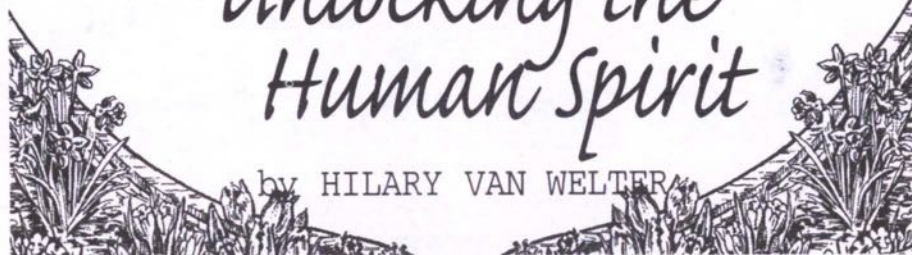
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Unlocking the Human Spirit

by HILARY VAN WELTER



The other day, while doing research at one of the fastest moving frontiers of the Knowledge Age—the Bloorview MacMillan Centre in Toronto—I lost my heart.

It happened the instant I looked into the huge brown eyes of a little boy who lay on an air mattress, motionless. He was unable to talk or move his body, and yet in the brief moment I was with this beautiful soul, and felt his energy, I understood more about the possibilities of our future than a mountain of books could teach me.

You see, this little fellow represents what we so often miss in the dialogue about technology and education—the power of the human spirit. We get so caught up with the techno wizardry, and the gadgetry, that we tend to forget the human element. One of the words that constantly comes up when we talk about the new millennium is balance. How do we find balance of technology and the human spirit in one of the most important areas of the Knowledge Age—learning?

This is a very tough question, because we have been blinded by our industrial models. We try to reform, reorganize, and re-engineer education, but the core ideology of our industrialized, assembly line educational system stays the same.

A proper beginning

Let's start with the human spirit. We have at our disposal incredible tools to develop the

true essence of the Knowledge Age: vital and happy human beings. In order to be happy, people of all ages need to feel they have control over, and responsibility for, their destinies.

Technology provides us with an important means of liberating ourselves from the chains of our industrial past. Look at the choices adults now have in how they work. Many people are creating new work portfolios that combine a variety of working relationships. For example, one person may simultaneously do contract work with one company, have a part-time employment relationship with another, while also doing volunteer work, and taking a course or program of study. People are also carrying out their work in multiple locations, enabled by technology—they are no longer tied to an office.

These are the changing realities of our world of work, and most young people wouldn't want it any other way. This portfolio gives them the freedom and tools to grow and unleash their full potential.

The benefits of diversity

How are we preparing ourselves and our children for this reality? What if we liberated our children and helped them develop this

portfolio approach to learning? Just imagine the incredible human beings that would emerge from a learning system that honoured our diversity and all our intelligences equally—including our musical, visual, natural (as in nature), and spiritual talents. Just think about the kind of people who would grow from a philosophy that truly respected exploration and play for all ages, as an authentic means of learning.

I saw this ideology of learning at the Bloorview MacMillan Centre. This marvellous place serves children and young adults with disabilities or complex long-term needs, such as cerebral palsy, muscular dystrophy, amputations, and head injuries.

The centre is setting the pace for learning in the new millennium. It starts with adults and children being co-creators in learning. In the new Computer Camp, for instance, campers learn about information technology in a fun environment that includes such activities as crafts, art, and outings, which are all carefully crafted play. The campers determine what they want to learn, and the counsellors design the activities based on daily feedback from the kids.

The Cosmic Bird Feeder, for example, inte-

grates a wide variety of activities including art, gardening, storytelling, music, drama, ceremony, and—most of all—play. The adults follow the lead of the creative impulses of the children as they explore together. Learning and healing are vital parts of the programs, whose goals are to build self esteem—the foundation of life-long learning.

The secret is balance. This is the world of "and," not "either/or."

I believe that we must create a level playing field with children, and young people, so that together we can open doors for real learning. As adults, we have so much to learn from these natural change artists who treat life with joy, trust, love, and vitality. The children and young people I have had the great fortune of meeting have helped me rediscover that education is the learning that takes place through spontaneous encounters with the unexpected. They have shown me that technology opens the gateway through which the human spirit can soar.

How long must we wait before this natural and ancient philosophy of learning enters our mainstream educational system? Our kids are ready, but are we?

Hilary Van Welter is the executive vice-president of the Proactive Group of Companies, which specializes in sustainable strategic change. This article is an excerpt from her upcoming book, *Vanguards of the New Renaissance*. She can be reached at proactiv@rogerswave.ca ♦

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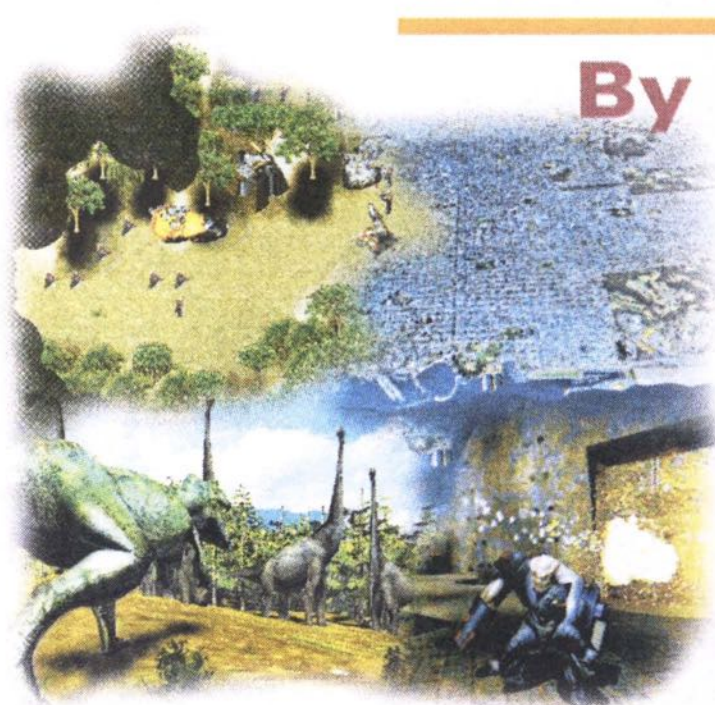
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HOT GAMES on the horizon

By Marc Saltzman



Adventure, Role-Playing

Myst sequel Riven looks simply gorgeous, and may well set the next standard of graphic adventures, as the original did more than three years ago. Westwood's Blade Runner, based on the 1982 movie, is set for a fall release and had its own jaw-dropping movie designed to show off its unbelievable graphics and sleek gaming engine.

LucasArts is poised to release the third and final installment in its Monkey Island series. Curse of Monkey Island was in playable form and you'll be happy to know it maintains the humor and clever puzzles as the first two titles.

Douglas Adams (the brain behind *The Hitchhiker's Guide to the Galaxy*) is back in Starship Titanic—a photo-realistic, non-linear adventure game that uses new speech-recognition and AI technologies with its many witty characters.

Spielberg and DreamWorks Interactive are taking a run at PC gaming with the digital follow-up to the blockbuster movie of 1997, *The Lost World*. Trespasser is a 3D dinosaur game that combines elements of adventure, action, and strategy all rolled into one scary premise. As with the movie, you are alone on the "Site B" island to fend for yourself.



accelerator cards).

The top first-person perspective titles were Sierra's Half-Life, id Software's Quake II, and GT's Prey (which is scheduled for a release some time in '98). All three proved to be excellent technological advances over their predecessors, with full multi-player support and free editors to make your own environments. To a lesser extent, Lucas Arts' Dark Forces II: Jedi Knight, ION Storm's Daikatana, 3D Realms' Max Payne, and GT's Unreal also drew in the numbers.

Speaking of Quake and 3D accelerator boards, a heated multi-player LAN contest took place at E3 sponsored by Intergraph, and the winner—Thresh—drove away with game designer John Carmack's blood-red Ferrari. Over 2,000 people entered the single-elimination tournament.

Strategy

Microsoft's Age of Empires attracted much of the attention at the show from both real-time and turn-based strategy fans. Bruce Shelley, the game's head designer, was on hand to demonstrate its features.

Other showstoppers were Bullfrog's Dungeon Keeper, Blizzard's Starcraft (playable free over Battle.Net, as is Diablo), and another Command & Conquer/Warcraft II offshoot, Dark Reign, from Activision.

Sports

EA's NHL '98 was the hands-down winner in the sports category. I didn't think Electronic Arts could add much to the stellar NHL '97—but they did! This sequel sports a beautiful new interface with large, colorful polygon players, better AI and real player signature moves, and faster frame rates. Other notable sports games include Microsoft's Baseball 3D, and Acclaim's NFL Quarterback Club '98.



Puzzles

Fans of the popular Berkeley's You Don't Know Jack (YDKJ) series (CD-ROM or Internet versions) will be happy to know that two new titles will be out by year-end: YDKJ, Vol. 3 (with new question types) and YDKJ, Television. Also look for a new word game, Acrophobia, on Berkeley's free Web network by the holiday season. ♦

Simulations

Certainly with this genre more than others, it was the year of the sequel, as you can tell from E3's top sim titles: James' Longbow 2, Microprose's Falcon 4 and MechWarrior 3, Maxis' SimCity 3000, Sierra's Earthsiege 3 and Red Baron II, Looking Glass' Flight Unlimited II, Microsoft's Flight Simulator '98, and Origin's Wing Commander V: Prophecy (awesome!). Graphics seemed to be the most improved areas, with many supporting new snazzy 3D accelerator cards.



In short, I felt like a proud father.

Watching at close hand this vibrant and unpredictable computer-gaming industry mature over the years is extraordinary enough, but attending a convention that celebrates its existence and proves its state of growth was simply heaven on earth. I stood there, smiling from ear to ear, staring at a 50-foot high metallic display of Quake II, Tomb Raider's Lara Croft riding a motorcycle back and forth, and movie theater-sized screens previewing the sequel to Myst and Steven Spielberg's Trespasser. This was my industry and I was at a computer gamer's Disneyland, peering into the window of the future.

Overly dramatic or not, I am referring to the recent Electronic Entertainment Expo (E3), held in Atlanta. Over 35,000 people crammed into the Georgia Dome and World Congress Center to catch a glimpse of what will be the hottest commodities over the next year for computer games, video games, and edutainment products. Over 2,000 games and services were exhibited, but the following titles were the ones that stood out in the computer-game division.



Action

This is still the hottest genre of all the PC-gaming categories. More specifically, 3D action games were the focus, with almost all of them supporting a 3Dfx or Rendition chipset (3D

A Rich Role-Playing Experience

BY WILLIAM A. WOOD



Realms of Arkania III: Shadows Over Riva

From Sir-tech Software, on CD-ROM for PCs. Street price: \$65.

Are you willing to commit? This is an important question to answer before loading Shadows Over Riva (SOR) onto your PC. This role-playing game, the latest from Sir-tech (whose CRPG pedigree is superb), will demand your attention in a way players used to the quick hits of Duke or Quake may not be prepared for. If you're willing to sign a good chunk of your life away, however, it will give you an absorbing and challenging experience in return.

Like its pen-and-paper ancestors, the centre of SOR is the team of characters that serve as the player's alter ego(s) during the game. Although SOR provides a ready-made bunch of adventurers, it is obviously much more sat-

isfying to craft a set of your own.

This process can literally take hours (a greater or lesser degree of control can be given to the computer—it's not all or nothing). Each character has pages and pages of stats, skills, and spells. You can create as many characters as you like, but your team can consist of only six members at a time.

Where to, buddy?

So there you are, six finely crafted adventurers trained, equipped, and ready for action. What now? That's entirely up to you.

SOR sets you down in the middle of the port city of Riva. As you explore, questioning the populace and mapping out the city and surrounding countryside, you will be presented with many dangerous and mysterious quests: trouble in the graveyard, a pet-stealing wizard, a vampire in the sewers, racial prejudice, pirates, a hidden mine full of dwarves

and demons, and much more. It's up to you to pursue or avoid the various missions, perhaps biding your time if something looks too tough (after all, your characters will get stronger over time—this is what role playing is all about).

This non-linear approach can be disorienting if you're used to being told what to do, but it's also a satisfying challenge. Ultimately, your goal is to bring peace and security to the region.

With the number of problems at hand, that will take planning, perseverance, and time.

Overall, the look of the game is fairly good, if somewhat dated—pretty graphics aren't the point, though. One really twisted aspect: the people you'll meet all have weirdly altered celebrity faces (some famous, such as Michelle Pfeiffer, and some obscure). This takes some getting used to.

Clumsy Combat

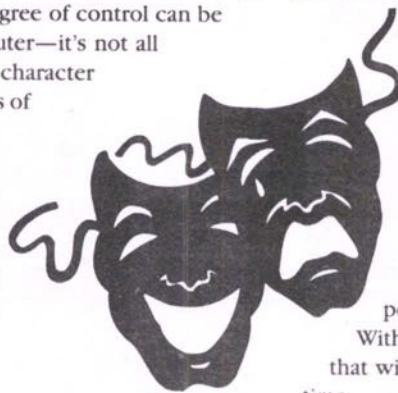
Players use a first-person view to move about and converse with citizens. When it comes to blows, however, the view shifts to a

rather clumsy three-quarter top-down grid view. Combat is turn based, with quicker characters and monsters getting their licks in first. Having the computer control the fight is an option (it does pretty well) if things get too crowded, or if you're just mopping up weaklings.

The music in the game is pleasant, which is a good thing—you'll be hearing it over and over and over again.

In short, SOR is a rich, free-ranging game that will reward those looking for a complex, lengthy fantasy role-playing experience. Just the sort of thing computer games were meant to be.

Games this complex often force players to look for help. For hints and tips, check out <http://members.magnet.at/pulaski/riva/riva.htm>.



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PostScript explained

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Andrew, via email

MacShrink David Rosen replies: PostScript is a sophisticated page-description language (PDL) that's used for high-quality printing on laser printers and other high-resolution printing devices. Invented by John Warnock and Charles Geschke at Xerox's Palo Alto Research Center (PARC), PostScript has revolutionized the way computers "speak" to printers. Warnock and Geschke later left Xerox and founded Adobe Systems, the organization that arguably jump-started the entire desktop-publishing (DTP) industry.

Although PostScript is a high-level programming language and you can learn to write page descriptions in it, PostScript is usually invisible and automatic for most people. In fact, the vast majority of computer users don't realize they're actually programming in PostScript when they use many modern computer applications.

When they ask their computers to print, it's the computers that generate the PostScript code that goes to the printer. This is a very important feature because it means people don't have to learn how to program just so they can print their letters and memos.

A major benefit of PostScript is its device independence. This means you can print the PostScript code generated by a software application on any printer with a PostScript interpreter. You can take PostScript files generated on your Mac or PC to any service bureau and these organizations can print your document using expensive typesetting machines with magazine-quality resolutions of up to 2,400 dots per inch (dpi). This is important for many designers, publishers, and other folks, since the technology lets them see what their documents will look like before they are sent to an even more expensive typesetter or commercial printer.

A PostScript printer includes the processing circuitry needed to decode and interpret printing instructions written in the PostScript language. Generally these printers are laser printers, although an increasing number of inkjet printers are PostScript compatible. PostScript printers are computers in their own right, albeit specialized ones. They have their own CPU chip, input/output (I/O) capabilities, and some random-access memory (RAM). To speed things up, you can even

attach a separate hard drive to some PostScript printers. Hard drives can be used to store hundreds of additional PostScript fonts, eliminating the need to download them from your computer every time you print. Depending on the complexity of your document and the speed of your local area network, downloading fonts can take anywhere from a few seconds to several minutes.

With all this extra hardware, PostScript printers are usually more expensive than their non-PostScript siblings. However, they can usually print more elaborate text and graphics in subtle gradations of gray and color than non-PostScript printers. They can also use Encapsulated PostScript (EPS) graphics and outline fonts, both of which you can size and scale without introducing distortions.

Speed is another concern. PostScript printers are generally faster—sometimes appreciably faster—since they have the on-board processing power. Non-PostScript printers have to rely on your Mac or PC to do this. Depending on the speed of your computer, how much RAM it has, plus the type of local area network in your office or home, printing a large graphic document can be excruciatingly slow on a non-PostScript printer.

So, PostScript printers are particularly useful if you're designing anything graphical, if

you need fast output, or if you want to use a service bureau for printing your final work. If you're just using your computer to keep your books, write letters, or let the kids run some CD-ROM games, a non-PostScript printer may be more suitable for your needs—and your budget.

Can Boot Manager tame Win95?

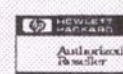
Q: How do I install Windows 95 with OS/2's Boot Manager? I have to start using Win95 at work, so I want to have it at home, too. But it took six tries, a few hard-disk reformat, and six months to get Win95 working on my son's machine. I don't want to risk my OS/2 machine unless I know I can safely have multi-boot capability. Thanks for any help.

Joe

Kevin Linfield responds: Fortunately for all OS/2 users, Boot Manager works with (as far as I know) all other operating systems, including those from Microsoft. I personally have installed DOS 5.0, DOS 6.2, Windows 95, Windows NT, and LINUX with Boot Manager over the years. The trick is to install Boot Manager first (on a blank hard drive if possible), then install any Microsoft operating system. Note that all Microsoft operating systems will disable Boot Manager, but you can easily re-enable it by booting from your OS/2 disks (installation disks or your

Continued on page 40

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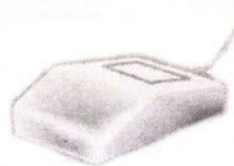
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You asked us...



You Asked Us

Continued from page 39

bootable disaster-recovery disks) and running OS/2's FDISK, marking the Boot Manager partition as "startable."

Since you already have OS/2 on your hard drive, you should look into a product called Partition Magic. It will let you repartition your hard drive without losing any information. Since Windows 95 must boot from your C: drive, you may have to manipulate your partitions a bit. Before you try anything, don't forget to back up everything!

Fixpak fidgeting

Q: I read your article about the first Fixpak that IBM has brought out for Merlin. I applied this Fixpak, and then my machine could not boot anymore due to a problem with one of the new DLLs. I booted to the command prompt and replaced the offending DLL (PMWP.DLL) with the old version, after which everything has been working fine. I'm a little confused now, though. Is this normal and should I worry about this giving me problems in the future?

Joris

Kevin Linfield responds: What you did was perfect for your situation. Although Fixpak 1 patches many problems and annoyances with OS/2, it does add some difficulties of its own. Since it makes a backup of all of the old files (in the \ARCHIVE directory), if a user

knows what file is causing problems, they can simply replace the "new" file with the older one. Rumors abound about another Fixpak being released this summer, and it might be out by the time you read this.

56K? Not possible!

Q: I just bought a US Robotics 56Kbps modem, but the maximum speed I can reach is 31.2 Kbps! First I thought it was my modem, but when I brought my computer to my ISP (they have crystal-clear phone lines), I connected and got speeds up to 45 Kbps! What can I do to make my phone lines better (or what can I ask the phone company to do)?

Alan Zisman responds: Surprise! You've discovered the normal behaviour for a so-called 56Kbps modem. Government regulations, in both the U.S. and Canada, about the amount of voltage allowed on a so-called plain old telephone service (POTS) line limits these to 53 Kbps at best. In the real world, this is rarely attained. Instead, speeds in the 45-49 Kbps are more likely. And as soon as there's any noise on the lines, performance drops down to standard 33.6 Kbps—or slower. That's for downloads only. Uploads are limited to 33.6 Kbps at best.

Finally, there are currently two competing standards for 56Kbps modems, and you need the same standard as your Internet service provider. Since you've got a US Robotics modem, use it with a telecom program to phone USR's toll-free line-test number (888-

877-9248) to see if your phone line will support higher speeds.

Don't scan me

Q: When I lose power (electricity goes out, and so on), Win95 SR2 boots up to a SCAN-DISK prompt, telling me I might have errors and to "Press any key to Continue." Is there any way to bypass this? I can not be at home every time we lose power.

Alan Zisman responds: It's not a bug...it's a feature. The newest version of Windows 95, so-called OEM Service Release 2 (aka Win 95b) automatically wants to run SCANDISK if the system restarts without having gone through the official Shut Down procedure. In this way, it attempts to check for and repair any file-system damage caused by the shut down.

You can turn this off, if you want. Like most of Win95's boot features, it's controlled by the text system file MSDOS.SYS. You can edit this file in DOS Edit or Notepad, but you'll have to turn off its read-only and hidden attributes first. Then, add a line to the [options] section reading "AutoScan=0" (no quotes of course). Save, and restore the read-only and hidden attributes.

Duplex Dilemma

Q: Hi Alan. I was wondering about the Internet Phone program I got in a "communication" CD-ROM that came with my modem. Upon installing it, I don't fully understand what is Full/Half duplex and how can I change

it. And is it really true that I can talk to people over the Net like over the phone?

Alex

Alan Zisman responds: Yes, you can use the Internet as a sort-of long-distance phone; you and the other party need to be on the Net at the same time, and you need to contact via a server that supports your software. You'll probably find it somewhat awkward to use, and low-fidelity—but the price is right!

In order to do this, you need a sound card that supports full-duplex—that means it can access its input and output stages at the same time; otherwise, you're limited to the kind of communication we associate with early radio—one person talking, the other listening, then reversing roles. Most recent sound cards support full duplex, but not all do, and in many (such as the popular Sound Blaster 16) you have to specifically turn it on, using, for example, the Windows 95 Control Panel.

Send any PC-related questions to Alan Zisman. He can be reached via email at Alan_Zisman_a_zisman@cyberstore.ca

• OS/2 questions should be directed to Kevin Linfield, a Toronto-based consultant and freelance writer. He can be reached via email at linfield@torfree.net

• If you have questions for MacShrink, David Rose, send them to MacGuy@tpon.com. Your last name and email address will not be printed. All of the MacShrink questions become the property of MacShrink and David Rosen. ♦

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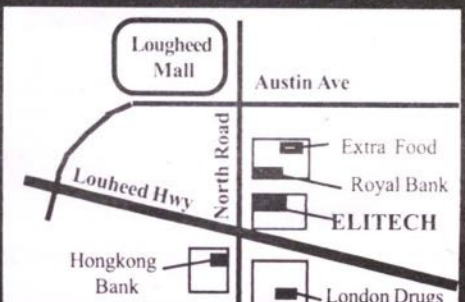
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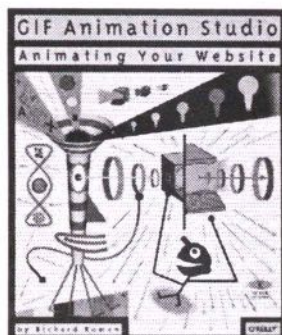
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An Animated Book

BY BRANDI JASMINE

GIF Animation Studio

By Richard Koman, from O'Reilly Publications, \$57.95 (includes CD-ROM).

For more information, visit <http://www.ora.com>

In the past, animation has been out of reach of all but the most dedicated hobbyists. But new tools bring simple animation well within the realm of possibility for desktop artists.

GIF Animation Studio—a book and CD-ROM—brings together some of the new “GIFmation” tools that make animation a snap.

GIF animations are appealing to Web artists because they are platform and browser-independent. Users don't need special software or plug-ins to view them. Also, the GIF (or compatible) format is featured in most image-editing packages. With each new software cycle, it seems that these applications are improving, adding new tools to the Webmaster's kit, and new life to Web sites and presentations.

The CD-ROM included with *GIF Animation Studio* offers a variety of shareware and demo programs for both Macintosh and PC formats. GIF Construction Set, Gif.gif.gif, RGB2Hex, and save-disabled demos of Kai's Power Tools, and Photoshop are also included, as well as numerous samples from the book.

The book itself is packed with information. The author presumes most readers are new to computer-aided design, and the basics are given good coverage.

GIF Animation Studio tends to focus on the applications as opposed to the craft of animation. You can be the world's best GIF Constructor, but that means nothing if you don't understand the fundamentals of animated movement. The Web is desperately crying out for books, software, and tutorials that

teach the creative basics after the software techniques have been learned. There is a fair effort made to do this in *GIF Animation Studio*, mainly involving fade-ins, and tricks with Photoshop filters, which can be used to create some spectacular effects.

Brandi Jasmine is a freelance writer and wanna-be animator. She can be reached at: jasmine@idirect.com. You can see some of her efforts with *GIF Animation Studio* at web.idirect.com/~bjasmine/gallery/animation/ ♦

Cyberspeak For the Highly Strung

BY S.J. ROSS

JargonWatch: A Pocket Dictionary for the Jitterati,

As overheard by Gareth Branwyn, from *HardWired*. \$12.75.

From Silicon Valley and San Francisco to midtown Manhattan and Hollywood, from the Internet and the World Wide Web to computer hardware and software, from the people who write the codes to the people who invade the systems, welcome to the '90s,

where jitterati (“what the digital generation becomes after tanking up on too much coffee”) of all types and locations are inventing and evolving a new language.

Written by Gareth Branwyn, author of *Internet Power Toolkit*, and editor of *Wired*, *JargonWatch*, a tiny notepad-sized book with a rough cardboard cover (treeware), is a delightful, mocking look into the twisted and often amusing words and phrases originating and mutating in the high-pressure, fast-paced, coffee-fueled cyberworld.

Highlighting the newest, the most interesting, and often the most tortured words to crawl their way into a once self-respecting language, *JargonWatch* terminology ranges from JPIGs (“the new generation of cyber-cops”) and treeware (“hacker slang for documentation or other printed material”), to bepilepsy (“the brief seizure people sometimes have when their beeper goes off”), and SloGo (“corporate slogans used repeatedly, in a manner similar to a logo”).

But beyond clever words and phrases, Branwyn also delves into a discussion about jargon and slang, how online technology is contributing to and amending terminology, and how cyberlanguage is blurring the distinction between technical jargon and street

Continued on page 47

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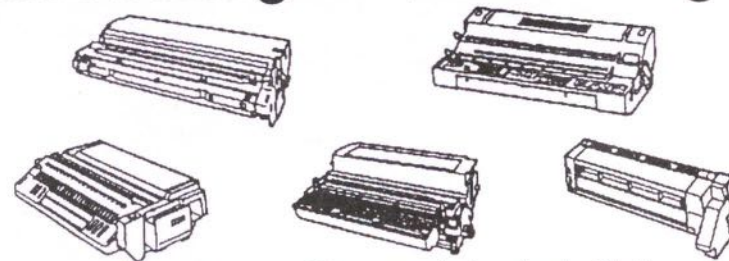
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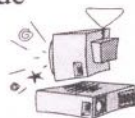


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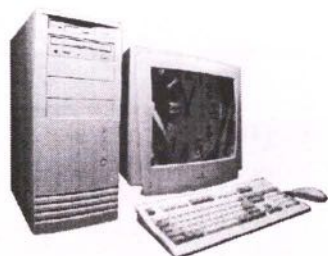
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Online

PNG Image Format Improves Color Control, Loses Less Data

BY PAUL ANGYAL

PNG is the new wunderkind of image formats designed for Web use, and Netscape Navigator 3.0 users can now take advantage of it.

PNG (pronounced ping) grew out of a decision by Unisys Corp. to enforce the patent they hold in the GIF-compression technology on software manufacturers. That decision, it turns out, was fortuitous for Web users, because it led to the development of PNG, which is far superior to GIF on many counts.

PNG images lose no data during compression. The files are about 30 percent smaller than GIFs and also offer superior color control. GIFs are 8-bit images, so the color palette is limited to 256 shades. That number is not sufficiently refined when you're dealing with serious graphics or 3D. PNG images can technically go up to 48-bit level, although at this point 24-bit is all our monitors can handle (16.7 million colors).

PNG as a single image format offers great flexibility in layering, multiple transparencies, and other features that result in very high-end output, the kind you get working with Adobe

PhotoShop, for instance (their new release 4.0 has built-in PNG support).

Dare to Dream

PNG's most interesting feature is the alpha-channel control that makes it possible for images to become semi-transparent, so they can be overlaid and bring you tint, ghost, and fade that you can't even dream of with ordinary GIFs.

If you have Netscape Navigator 3.0 or later, and are on Win95/NT, you can download a plug-in from Siegel and Gale (<http://code-lab/siegelgale.com/solutions>). With the plug-in on hand, you can do a lot more than just look; right-clicking opens up an interactive menu, where you can zoom, sharpen, invert, and do all kinds of neat things with the image while watching it change before your eyes.

At this point, Explorer users are out of luck; IE 4.0 offers some native support for PNG, but only under the IMG tag used for GIFs and JPEGs, and only with the crudest features (they are working on it, they say).

A comprehensive resource site and links to free tools can be found at W3C's PNG site (<http://www.w3c.com/~png>).

A pretty picture (format) indeed. ♦

Thank you for participating in the *Computer Player!*

COMPUTER REPAIR LISTING

This listing for the September issue will cover shops and businesses in the Lower Mainland. Please complete the following and fax it back to the Computer Player! office to the attention of Megan Johnston at 604-688-4270, by August 10, 1997.

Contact name: _____ contact phone: _____

1. Business name _____

2. Address: _____

3. Business phone number _____

4. Email address _____

5. How long has your shop or business been in operation? _____

6. What repairs do you specialize in? (software, hardware upgrades, printer, monitor, CPU, other) _____

7. Are you authorized to service certain brands? (please specify) _____

8. Do you offer warranties on your work? (please specify) _____

9. Do you make house calls or provide pick up & delivery? (please specify) _____

10. Do you charge an hourly fee for consultation/repairs? (please specify) _____

please note: submissions may be edited for space and/or content

Latest Flowcharter Creates Powerful Diagrams With Ease

BY JACQUES SURVEYER

Flowcharter 7

From Micrografx. Price: \$400 (\$170 upgrade), as part of Graphics Suite 2, \$480 (\$200 upgrade).

The days of dread are over. Putting together an explanatory diagram or flowchart used to be an intimidating prospect. No more. Programs such as Visio, CorelFlow 3, and AllClear have made the process much more approachable. But the latest edition of the granddaddy of diagramming and flowcharting programs, Micrografx Flowcharter 7.0, once again shows how to make diagramming really easy.

Also, along with hundreds of fonts and templates, plus thousands of clip-art images, Micrografx has stuck in Cool Sheets and Living Flowcharts for all those small and home office users who need a little extra help in explaining or documenting their tasks.

Diagrams and Flowcharts

Diagrams and flowcharts act as alternatives

for presentations. The approach you choose will depend on the type of the information you need to convey.

Use a diagram or flowchart when:

1. there are several connected or inter-related images in the diagram;
2. a process or path, in a series of steps, needs to be explained;
3. detailed instructions on what and how must be included;
4. and when "when" and "what" to do, not "why" or "how come," is the message;

Use a presentation program when:

1. persuasion is the main message;
2. numbers and graphs are major parts of the show;
3. ideas and concepts have to be listed and exposed in bullet form;
4. a slide show with audio, style, and special effects is expected.

I have seen smart trainers and presenters use both tools at once or interchangeably. But think of diagramming tools as being instruc-

tional and presentation tools as persuasive.

Getting into Shape

Flowcharter 7 comes with dozens of pre-designed templates for use in your diagrams. In addition, the program links up with the Micrografx MediaManager, allowing tens of thousands of clip-art drawings and pictures to be easily imported into your diagram. So it is worth the time to check out the Shape palette (just click on the arrow bar to step through the available choices) and see what templates you want to work with. My personal favorites are Auditing, Color Flowchart, Industrial Signs, Networks (LAN/WAN), Networks (PC), People, and Project Timelines.

To draw a shape, just click on the Shape tool and start laying out your diagram. Click on the form and voilà, a shape appears. Click again and another copy appears. Go to the Shape palette and click on the next shape you need. Point the mouse to where you need the shape and click. Don't worry about connecting or formatting the shapes—that is easily done.

Rather, lay out five or six shapes, then click on the Finish button or just choose another tool from the toolbox.

Flowcharter is a complete drawing program, with all the basic drafting tools (box, circle, ellipse, curved line, jointed line, polygon shape, and so on) and shape controls (bring to front and back, align, rotate, move, enlarge, reshape, and so on) one would expect in a good draw program. The trick is to learn two things. First, the shapes and connectors are smart. Once linked together, they move, rotate, and resize in unison. Second, there are a number of shortcuts for working with Flowcharter shapes.

Here are some basic tips. When you have selected the shape, connector, draw, or text tools, you have to remember to turn them off either by selecting a different tool, clicking the Finish Button, or right mouse-clicking anywhere and select Switch Tools.

Right mouse-clicks are vital. When you right mouse-click on a shape, a menu pops up allowing you to edit for form, text, text position, format (including color, fill, and outline), properties, and scripts. Right mouse-click on the form and you can set general properties that apply to the complete drawing. Right mouse-click on any toolbar and you can

Continued on page 46

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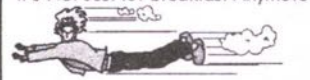
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This pricelist supersedes all previous published pricelists and is subject to change without notice

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* Full version for Academic

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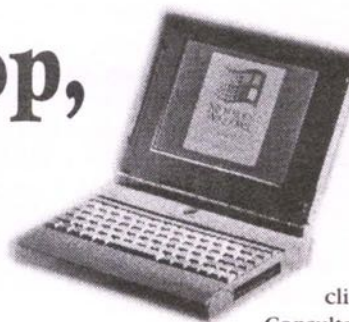
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Laptop, Call Home!



BY JUNE CAMPBELL

Computrace

From Absolute Software Corp.
Software/Activation. Contact: 800-220-0733 or
<http://www.computrace.com>. Price: \$39.95, \$80
per year (monitoring service)

Would you deliberately install an invisible and indestructible virus-like application on your PC, knowing it was going to place clandestine phone calls through your telephone line? Have you ever dreamed of a laptop that would phone in and report its location if stolen? If your answer is "yes" you may be ready to sign up for Computrace, a brand new "stealth" virus-like technology that is proving to be remarkably effective at recovering stolen mobile computers.

Developed by Absolute Software Corp. in Vancouver, this electronic security product has completed its beta-testing phase and is being released for sale throughout Canada and the United States.

The tiny software program (under 7KB) installs quickly and easily on your hard drive, using a password and code number you are issued when you purchase the product. Once installed, Computrace is virtually indestructible—not only is it completely invisible on your hard drive, it amazingly survives disk formatting and FDISK partitioning. When activated, Computrace silently dials out through your modem and phones a toll-free number to the central monitoring service, where the phone number is recorded. Computrace continues to silently and reliably phone and report your computer's whereabouts, adhering to a schedule you've specified.

Springing into Action

If Computrace cannot complete its call at the appointed time, as in the case of theft, it

swings into alert mode and persistently attempts to dial out. The instant the modem is connected to a line, Computrace phones the monitoring service and report its whereabouts, even if Caller ID is blocked or the number is unlisted.

In November 1996, Computrace client Bea Lorimer of In Focus Tour

Consultants was working at a concert for the rock band The Tragically Hip at Maple Leaf Gardens in Toronto when her Toshiba laptop was stolen backstage. The computer made contact with the monitoring centre on Jan. 17, 1997. It was recovered the next day by police in Woodstock, Ont.

According to Peter Smythe, Absolute's marketing manager, Computrace was 100 percent successful in retrieving stolen laptops during its testing phase. The only stolen computer not yet recovered was a desktop PC with an external modem. Thieves left the modem behind; whoever has possession of the hard drive will be in for a surprise should they ever decide to hook up a modem.

One of a Kind

Computrace is a product seemingly without competitors. Of the various alarms and security devices available for laptops, only Computrace offers electronic security and monitoring.

Although Computrace is available to the home user, Absolute's marketing thrust is to corporate enterprises, where mobile-computer theft is a serious problem. "Approximately 52 percent of thefts are internal," states Smythe. With Computrace, corporations can address the problem of employee theft, as well as monitoring the patterns of use. For example, a laptop that consistently calls in from a home environment may be replaced by a more economical desktop model, and the more costly mobile PC allocated elsewhere.

As for a downside, Computrace is only available for the PC using DOS, Windows 3.x, and Windows 95, and is less effective with desktop units. Also, the geographic area monitored is limited to Canada and the United States. Otherwise, my rating is an enthusiastic "thumbs up" for this unusual variation of a computer virus! ♦

Flowcharter

Continued from page 45

show/hide any toolbar as well as customize its layout.

Packing it in

Flowcharter has packed in a number of features for both the neophyte and the power user that we can only touch on briefly here. CoolSheets are wizards that guide users in creating sophisticated diagrams such as block charts, pyramid diagrams, timeline calendars, process flows, and so on. The SPC Wizard helps create graphs and Statistical Process Charts.

Finally, the Shape Action Wizard, VBScript

(soon to be Visual Basic Applications), and Flowcharter's hyperlinks combine to create Living Flowcharts—flowcharts that become presentations, or interactive instruction manuals, or simulation models, or whatever a clever user wants to set up. There are plenty of excellent examples provided by Micrografx.

In sum, Flowcharter starts you off easy in the world of drawing, flowcharts, and instructions. It then has the ability to empower some very imaginative, very cool interactive illustrations of what, when, where, and how.

Jack Surveyer goes with the flow at jbsurv@inforamp.net

Software

Plus! for Kids is for Parents, Too

BY ALAN ZISMAN

Plus! for Kids,

From Microsoft Corp., for Windows 95/NT, on CD-ROM. Contact: <http://www.microsoft.com/kids>. Price: \$24.95.

It gives you kid-oriented desktop themes, and parent-oriented control. It's for kids who like horses, kids who like snowboarding, kids who'd rather their computer look like a messy room. It's Microsoft's new Plus! for Kids (P4K).

Designed as an enhancement for family computers running Windows 95 and NT, P4K does a good job of appealing at the same time to kids and their parents.

Kids will like at least some of the 10 desktop themes. These themes, as in the original, adult-oriented Plus! Pack, give you wallpaper, icons, sounds, screen savers, and even animated cursors built around a single idea (space, baseball, rainforests, underwater, and a realistically cozy messy room, among them).

Kids will also enjoy the included applications. Paint It! is, not surprisingly, a paint program with some way-cool clip art. Play It! gives a synthesizer keyboard, complete with recording capabilities (add your own melodies to pre-fab rhythms). Talk It! plays back what your child types.

Mom and Dad will be happy with the con-

trol P4K gives them over their children's use of the computer. Building on Win95's built-in (but hard-to-control) security capabilities, P4K makes it easy to give each child his or her own log-in. This lets each member of the family have a customized desktop, complete with a preferred theme.

More importantly, it lets parents control access to documents and applications on the computer. The Protect It! utility lets parents ensure children can't delete the system files or their work files, for example, and each child can have his or her own, customized Start Menu.

(One glitch—P4K shuts off CD-ROM Autoplay, which automatically runs discs when they're inserted into the drive, which is a nice feature, especially for young children.)

P4K also tried to provide a similar level of control and security over children's Web surfing—with less success.

Parents can restrict children's access to sites that have been rated by the Recreational Software Advisory Council (RSAC), screening out sex, violence, and bad language. Most sites are currently unrated, though.

Unrated sites aren't necessarily objectionable, however. The option of limiting children's surfing to sites with acceptable ratings shuts off the Yahoo search engine, for example.

In addition to P4K's built-in Web control, a trial-version of SurfWatch is included.

For under \$30, Microsoft's Plus! for Kids provides a nice mix of applications and customization for kids, with well-implemented security features for parents or teachers. ♦

probably going to be required. How does your message know where to go? Why is it that your PC-based system can download a file from a Mac-based server? And how can it possibly happen so very quickly?

If you're curious about the answers to those questions, here's a book for you. *Where Wizards Stay Up Late* is an in-depth look at where the technologies that make up the Internet came from. Or, more accurately, where the ideas behind the technologies came from. It's a fascinating story.

The Wizards of the title are the men who worked for a company called Bolt Beranek and Newman (BBN) in the 1960s, 1970s, and 1980s. BBN, which was recently purchased by communications giant GTE for US\$616 million, was the home of such Net luminaries as Vint Cerf, Bob Taylor, Larry Roberts, and Steve Crocker, each of whom had a major part in building what we now know as the Internet.

Told in well-written narrative fashion, the story gets down to explore some of the real nitty-gritty issues of creating large-scale networks that work (or how people dreamed they might work). The esoterics of packet-switching theory, the wars fought over how much information should be held in message headers, the struggles to convince government, business, and academe that such a thing as an "internetwork" was even possible—all the stories are here for your enjoyment and edification. ♦



Books

Continued from page 42

slang. For dedicated word watchers, Branwyn also provides an appendix of jargon and slang reference books.

More a giggle than a serious reference book (it is classified as popular culture/humor), *JargonWatch* is nonetheless a handy book to keep near your computer. After all, you never know when you're going to receive Martian mail from your mouse potato keypal requesting that you F2F in RL to enhance your byte-bond. ♦

Tracing the Internet's Family Tree

BY ALAN THWAITTS

Where Wizards Stay Up Late:
The Origins of the Internet

By Katie Hafner and Matthew Lyon, from Simon and Schuster. \$32.50.

Next time you're sending an email message or hitting your favorite Web site to download a cool graphic, take a moment or two to consider what's happening to link you to the world. Net connections and interfaces have become so smooth that some real effort is

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BY JOHN MORRIS

Maximizer 97is,

From Maximizer Technologies Inc., for Windows 95/NT 4.0. Contact: www.maximizer.com. Suggested retail price: \$149 (\$100 upgrade, \$79 if purchased directly from Maximizer).

The release of a new version of the popular Maximizer contact manager, Maximizer 97is, will no doubt please current users of this powerful product. The possibility of using US Robotics' PalmPilot hand-held computer in sync with a full desktop or laptop-based Maximizer is very exciting.

It's a bit of a Cinderella story with Maximizer. The product has consistently provided some of the best contact-management features available from an entry-level product. However, the company did not have the same financial strength behind it as competing products, such as Symantec's ACT!

Savvy Solution

That's all changed now since Vancouver-based real-estate mogul and Cal State engineering graduate, Terry Hui, purchased the company in 1995. Maximizer 97is (the "is" stands for Internet savvy) is the company's first release under Hui's tenure.

Maximizer's traditional strengths are still in

evidence with Maximizer 97is. The product has always done well in two areas where some other contact managers have not: Maximizer supports multiple contacts per company, as well as multiple "opportunities" per company, using the Hotlist. Salespeople, particularly in the "business-to-business" world, will find Maximizer's features in these areas very useful.

Maximizer is based on the powerful Btrieve database. This has several implications: you can support large customer and prospects lists and still get good performance; generally speaking a Btrieve database is much more difficult to corrupt than a dBase or Xbase database; and you can actually run multiple copies of Maximizer on your desktop at the same time! Maximizer's group and remote capabilities work well.

Maximizer has also always been distinguished from other contact managers by its



"list-based" interface—a very efficient use of screen real estate.

What's new with Maximizer 97is? I'm tempted to say "not enough"—with the exception of Pilot integration. It now has basic MAPI or VIM email integration. This is a nice and much-needed feature, but Maximizer doesn't become a full email client—you'll still have to use Exchange, Eudora, or CC:Mail.

Pilot Soars

The nicest thing about the new Maximizer is the integration with the popular Pilot hand-held, which addresses what has been probably the biggest problem with contact managers: paper-based calendars are portable; computers are not. Now, however, you can sync your pocket-sized Pilot and your main system together using Maximizer. The Pilot

can hold a fairly substantial database—and you can choose what part of your database to mirror on the Pilot. Changes and additions

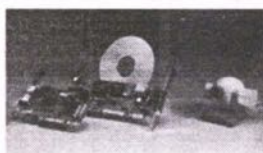
on the Pilot will be synced back the "mother" database later. Doesn't this sound handy?

Here's what the Maximizer team needs to work on. First, sending a single email or fax shouldn't require you to slog through the whole mail-merge procedure. Second, the calendaring function lacks many of the conveniences of a well-known competitor. Finally, the Maximizer team is holding back Hotlist features for users of Maximizer Enterprise (a complete sales-automation environment sold by almost 250 value-added resellers).

Maximizer Enterprise has the functionality that supports arithmetic in the Hotlist—in other words, you would be able to assign probabilities, dates, amounts, and expected values to Hotlist opportunities, then manage your sales pipeline without having to duplicate everything in an Excel spreadsheet!

If these changes were made, Maximizer would become a killer product. As it is, it's still good—and with the Pilot, very attractive.

John Morris lis with Open Sesame Systems and contacted at 72144.723@compuserve.com or 416-781-0623. ♦

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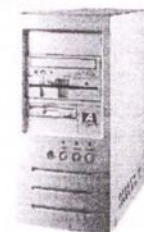
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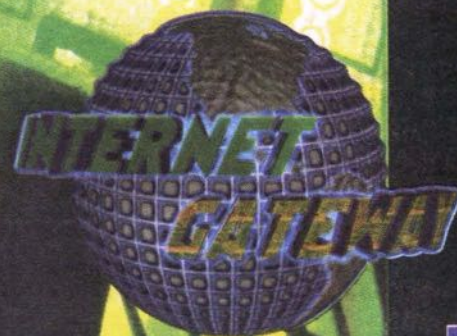
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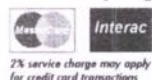
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News

PoCo Firm's Software Fuels Robotic Gas Jockey

by June Campbell

Before long, motorists gassing up at Shell service stations may be served by Smart Pump, an intuitive, gas-pumping robot developed by ISE International Submarine Engineering in Port Coquitlam.

According to David Musil, a mechanical engineer at ISE, this project is the first of its kind: that is, the first time a robot will interact with customers to this extent.

When customers register with Shell for the service, they'll receive a card to place on their windshield that provides information about the make and model of the car and the location of the fuel tank. As the car pulls up to the pumps, the robot will read the card, sense where the car is positioned and send a customer interface (i.e. a little box) to the driver's window. The driver will swipe their card through the interface, key in their selection and the robot will go to work, opening the fuel door and pumping gasoline.

Smart Pump utilizes ICE's proprietary software, ACE 3.0 (Automated Control Engine). ACE, which runs on Windows NT and QNX operating systems, is an embedded, event-driven application featuring real time control. In various adap-

tations, the flexible and sophisticated software application has been used in the remote control of submarines and other submersives and is being used with robotic manipulators for the Canadian Space Agency.

The Smart Pump robot has been under development for the past 3.5 years and is currently being tested in Shell stations in Sacramento, Calif. Following testing, Shell will seek approval from regulatory agencies, then will move into mass production.

Musil remarked "I can't say when it will be released in Canada, but California has the strictest environmental regulations in North America, so once it's approved there we know it will meet Canadian standards. And consumer response so far has been extremely enthusiastic."

For more information contact ISE via email at info@ise.bc.ca, or check out the company Web site at <http://www.ice.bc.ca>.

June Campbell is the owner of Nightcats Multimedia Productions. You can reach her by email at campbellj@istar.ca or by phoning 604-980-3219 during business hours. ♦

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1Xbi-directional Parallel
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HOT

\$899

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AST oem Motherboard, 16MB EDO Ram 72Pin
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PCI Enhanced IDE (mode 3&4) w/ 16550x2
1 Enhanced Parallel Port (Bi-Directional)
S3 Virge 3D w/2MB EDO ram Mpeg
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104 win95 Enh. Keyboard & Media Mouse w/ pad
Proview 15" 1280*1024 .28 SVGA Monitor
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***** Canon BJC100 Color Printer *****

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ASUS TX97 512K Pipeline Burst Cache support SDRAM
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1 Enhanced Parallel Port (Bi-Directional)
MGA Mystique 3D Graphics w/ 2MB Wram
19" CSA Tower Case w/ 230W Power Supply
104 win95 Enh. Keyboard & Media Mouse w/ pad
Hitachi SuperScan Pro 620 17" monitor (on demo)
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SoundBlaster 64 AWE PnP w/wave table, 200W Speakers
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Intel Pentium Pro 200 CPU
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S3 3D 2MB EDO Ram w/ Mpeg
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15" N.I. L.R. SVGA Monitor
12X CD ROM
Sound Blaster 16 PnP w/ 80W speakers
104 Win 95 Enhanced Keyboard
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Zoltrix 33.6 Int. Fax/modem	\$75.95
Zoltrix 33.6 Int. Fax/mod/Voice	\$85.95
Zoltrix 33.6 Ext. Fax/mod/Voi	\$119.95
Zoltrix 33.6 PCMCIA	\$179.95
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16MB 72Pin EDO	\$84.95
32MB 72Pin EDO	\$169.95
168pin DIMM 16MB	\$115.95
168pin DIMM 32MB	\$199.95
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NEC VX17+ 17"	\$989.95
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Panasonic 24x CD-Rom	\$149.95
Pioneer SCIS CD-ROM 12x	\$149.95
16Bit PnP Sound Card Full duplex	\$34.95
SoundBlaster 16 (PnP)	\$69.95
SoundBlaster 32 PnP	\$115.95
SpondBlaster 64 value	\$149.95
Sound Blaster 64 retail	\$235.95

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2.1GB Hard Drive	\$279.95
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Quantum 3.2GB SCIS HD	\$499.95

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Sony 2XWrite 6X read CDR	\$459.95
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the Technomad tour

Journal & Tools Report

by Alan Thwait's



Ah, the delightful sounds of a long-distance cycling tour! The hum of tires on a good road surface. The "snick" of a clean-shifting derailleur. The crackle and hiss of a high-speed cellular modem...

What's that? How on earth did the modem get in there? Well, if you'd been with me on the TechNomad Tour—a 1,800 km solo cycling trip through Ontario, Quebec, and New York State—the modem sound would

have been a daily occurrence. As would the sight of a palmtop computer and a cell phone lying on picnic tables at wilderness camp-sites and scenic lookouts.

The tour was an excellent test of mobile

computing technology, albeit in the context of a journey powered by legs and lungs. The palmtop-computer/cellular-phone platform, as planned, allowed me to do my work as a technology journalist while travelling "unplugged and connected."

It was surprisingly easy to adapt my cycling/camping routine to the demands of cyberspace. At the end of each day's ride, after setting up my tent, making a cup of tea, and having that all-important shower to wash off the road's dust, I'd fire up the Psion, send off accounts of the day's ride to my editor and to the TechNomad Web site, collect messages (including some from people I met while en route), and check out a couple of weather-oriented Web sites to help me plan the next day's ride.

Context is Everything

It was a wonderful combination of high-tech content and low-tech context. The cell phone would beep, the modem crackle, all those messages would come pouring in, seemingly from the ether itself, while I watched a great blue heron tiptoeing through the reeds in an inlet off the St. Lawrence River, or listened to the cry of a loon as it skimmed a wilderness lake in the

Continued on page 55

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P-150 \$1470	16MB EDO RAM, 512K PB Cache
P-166 \$1530	Fujitsu 1.44 Mb Floppy Drive
P-200 \$1630	2.1GB EIDE Hard Drive
P166mmx \$1640	2 serial, 1 Parallel, Ports
P200mmx \$1730	64 Bit Video Card, 2Mb w/Mpeg
	Toshiba 16x CD-Rom
	Full Duplex Sound Card
	50w Amplified Speakers
	33.6k Data/Fax Modem
	Daytek 14" Svga Monitor
	NMB 104 Key Win95 Keyboard
	15" Tower Case w/ 250W CSA P/S
	Logitech 3 Button Mouse
	Windows 95 Full CD Version
	Free 1 Month Internet Access

Pentium Pro \$2080.00 (200Mhz)	Intel Pentium Pro/ Pentium-II Processor
	32MB EDO RAM,
	1.44MB Floppy Drive
	2.5GB EIDE Hard Drive
	2 Serial, 1 Parallel, 1 Mouse Ports
Pentium-II \$2380 (230Mhz) \$2480 (266Mhz)	ATI 64 Bit Video Card W/ 2Mb
	Win-95 Keyboard, Logitech mouse
	16X Speed CD-Rom
	Daytek 14" Svga Monitor
	19" Case & 250 Watts Power
	2 Years Warranty

MONITORS

Daytek 14" NI SVGA .28	\$230
Sceptre 15" NI LR Flat SVGA .28	\$370
Sceptre 17" LR Flat Screen NI SVGA	\$640
Samsung 20" GLs Monitor	\$1680
ADI 4P 15"	\$395
NEC C500 15"	\$495

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2 Power Speakers w/ AC adapt	\$26
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Sound blaster 32 P&P	\$119
Sound blaster AWE 64 P&P	\$139
Discovery Awe64 kit	\$398
16 bit Sound Card	\$39
Sound blaster 16	\$75
Toshiba 16x speed CD-Rom	\$120
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Backpack 800mb parallel port backup	\$195
Seagate 8.0G Int./ext.tape backup	\$1230/\$1370
HP Surestore 5000E 4GB tape backup	\$1350
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VLB EIDE Cntrlr w/ Enhanced I/O	\$45
Adaptec 1522/1510 SCSI Cntrlr	\$125/\$105
Adaptec 2842A VLB SCSI Controller kit	\$350
Adaptec 2940/2940W PCI SCSI Cntrlr	\$295/\$350

MOTHERBOARDS

5X86-133PCI 256k w/ CPU, fan	\$190
P-133 / 150 512k w/cpu, fan	\$280/\$320
P-166 / 200 512K w/cpu, fan	\$380/\$480
Intel Pentium-Pro 200	\$800
Intel Pentium-II 233	
Intel Pentium-II 266	

Printers & Sanner

Okidata OL-4W Laser 600dpi	\$315
HP 670C Color Deskjet	\$288
HP 692C Color Deskjet 600dpi	\$399
HP 820Cxi Color Deskjet 600dpi	\$409
HP 870Cxi Color deskjet 600dpi	\$559
HP LaserJet 6L 600dpi	\$568
HP LaserJet 6P 600dpi	\$1040
HP LaserJet 6MP 600dpi	\$1280
HP LaserJet 5 600dpi	\$1440
HP LaserJet 4V/4MV	\$2580/\$3690
Canon BJC-4200 / BJ-30	\$335/\$295
HP-5S Scanner	\$369
HP-5P Scanner	\$539
HP-4C Scanner	\$1049

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Novell 3.12/4.11 (10 user)	\$1630
Novell 3.12/4.11 (25 user)	\$2680/2680
Eagle 2000+ 16 Ethernet Card	\$88
IBM 16bit Ethernet 10Base-T Card	\$45
Network Starter Kit	\$98
cable, connector, terminator & crimping tool	

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IBM ThinkPad 380D	\$3150
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News

- Intel Drop down the CPU prices
- Intel LT430TX come to market
- AMD K6 CPU with high performance
- 32M SDRAM takes over the market
- Quantum ST (UIDE) in #1 sales

Intel drop the Prices

Intel Pentium 200 Mhz System

- Intel Pentium 200Mhz CPU
 - Intel T2 Chipset motherboard
 - Micron 16 MB 60ns EDO RAM
 - Mode 4 2.0GB EIDE HD
 - Fujitsu 1.44MB Floppy
 - CD-ROM 12x EIDE CD-ROM
 - Acer 16 Sound Card w / 80W stereo Spkr
 - Cirus Logic 64bit 1M SVGA Card w/MPEG
 - Hilevel 15" AT Case with 230W
 - Mitsumi 104 Windows'95 Keyboard
 - J-Mouse w / pad
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- two years parts and labor depot warranty

Optional : (w/system only)

- 17" SVGA.....+\$250; NEC C500.....+\$240,
- NEC E500.....+\$280, ViewSonic G771...+\$520,
- ViewSonic 17PS. .+\$680, Sony 100SX.....+\$280,
- Microsoft Windows'95 full version.....+\$110
- Microsoft Encarta'97 home pack.....+\$70
- Creative 33.6 VoiceFaxModem int.....+\$80
- USR Sportster Voice 33.6 (up to 56k)....+\$135
- USR 56k Int. / ext.+\$195/270
- IO Zip 100M scsi/Parallel+\$190
- Epson 400color...\$300 Brother 730DX...+\$440*

\$1195

16x cd-rom: \$95
Special

- Intel P5 166mhz.....\$1130
- AMDK5 166mhz.....\$1080
- IBM 6x86-200mhz....\$1090
- Intel P5 MMX166mhz.....\$1230



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- ATI 3D Pro Turbo PC2TV 4M/8M.....\$195/290

Motherboard

- VX 512k AT / TX 512k AT\$88/145
- Asus TX97 AT /ATX.....\$210/220
- Intel HX512k/ LT430TX ATX.....\$155/225

Case/KB/Mouse

- AT 13"/15"/19"/23" with power.....\$40/45/60/110
- ATX 17" /23" with ATX power.....\$95/120
- 104KB/Fujitsu 8725/ 4725.....\$18/25/55
- J-mouse/Logitech 2B/Mouseman.....\$10/15/30

Monthly Special

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- Quantum:ST 2.1/3.2/4.3/6.4G.....\$250/295/370/505
- WD 2.1/2.5/3.1/4.0/4.3G.....\$250/270/295/380/400

Printer: BJC 4100/ 4200.....\$275/285

- Epson Stylus 600/ 800 (1440dpi).....\$380/520
- Borther 730DX / HP 6L.....\$410/\$515

Modem: USR 33.6 / 56k Voice.....\$132/ 190

- Creative 33.6 Voice/ 56k voice.....\$78/\$125
- Motorola 56k voice. (int. / ext.retail).....\$190/250

Monitor: 15" SVGA 1280x1024 .28.....\$295

- NEC XV17+.....\$860 ViewSonic G771(17GS).....\$740

SoundCard: Creative SB16/32/64.....\$58/105/120

- Acer Sound 16bit/ AW32\$30/40

CD-ROM: 12x /16x /20x /24x.....\$90/95/115/130

- CD-Writer HP6020i ...\$470 Yamaha 400i.....\$820

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- 4M/8M/16M/32M 72pin.....\$26/45/76/145
- 64M/128M.....\$495/975
- 16M/32M/64M DIMMSDRAM.....\$98/185/465
- 1M/4M 30pin SIMM.....\$11/25
- Parity SIMM / ECC-DIMM / MAC in stock

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- Jaz Drive IG int/ext. scsi\$400/520
- SyJet 1.5G SCSI int/ext/para.....\$490/580/580
- 3.2G int/ext, 4G int/ext.....\$250/300/430/560

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- Megahertz XJ3336T 33.6kFM/10BT .. \$410

- Megahertz XJ4336 33.6k FM.....\$295

- Motorola 33.6 modem.....\$295

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- 16 bit ISA /32bit PCI comb\$30/\$40

- Intel PCI Pro 10/100.....\$95

- 3COM PCI 3C900 comb / 100BT.....\$120/ \$95

- BNC/Terminator/T.....\$3

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- Novell Users 5 / 10\$900/1500

- NT 4.0 Server 5 / 10\$920/1200

- NT Wkstn 4.0 / license.....\$280/60

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- Intel P5MMX166/200.....\$1400/1520
- Intel P5MMX 233.....\$1700
- AMD K6MMX166/200.....\$1390/1470
- AMD K6MMX 233mhz.....\$1690
- IBM MX166/200/233.\$1380/1470/1680

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SDRAM-DIMM 32MB 10ns 168pin
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Mystique-II (220) 2MB w/MPEG (up 8M)
1.44 Fujitsu floppy
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15" Hilevel tower case w/ 230 power
Fujitsu 104 win95 KB and Logitech Mouse

- (12x / 16x /24x cd-rom eide.....+\$90/95/130
- (Creative SB16/32/64.....+\$60/105/130
- (Creative 33.6K/56k Voice.....+\$80/125
- (USR Spt 33.6 / 56K Voice.....+\$135/190
- (Ultra-IDE: 2.1G/4.3G/6.4G.....-\$40/+ \$90/220
- (Sony 100SX/200SX/SF.....+\$210/600/680
- (Viewsonic V775/G771/17PS.....+\$480/450/620
- (w/ Asus TX M/B (AT/ATX).....+\$70 / 120
- (w/ Gagebyte TX M/B (AT).....+\$50
- (w/ Intel LT430TX ATX and Case.....+\$140

Intel Pro / Pentium-II systems

Intel P6-180/200(256k).....\$1400/1500

Intel Venus 440FX 2S, IP, EIDE, ATX
32M EDO 72pin 60ns
FD 1.44, 3.2GB eide HD Mode 4
Mystique-II (220) 4MB w/MPEG
17" ATX Tower case w/ATX power
Fujitsu 8725 104 win95 keyboard
Logitech mouse w/pad

Intel PII(512k)-233/266.....\$1990/2250

(with Intel PD440 motherboard)

Intel Dual PII(512k)-233 x 2.....\$3230

Intel Dual PII(512k)-266 x 2.....\$3750

(with Dual PII motherboard and two CPUs)

Intel Dual PPro-180mhz x 2.....\$2180

Intel Dual PPro-200mhz x 2.....\$2490

(with Dual Pro motherboard and TWO CPUs)

Notebooks

NetBook MMX166/32m/2.1G/12.1" TFT/10x/33.6 \$3650

NM200DTF.MMX200/32m/2.1G/12.1" TFT/10x/33.6 \$3900

Toshiba 200CDS • P100/8M/810MB/11.8" DSTN \$2050

220CDS • P133/16M/1.3G/10x/12.1" DSN (new) \$2850

440CDT • P133MMX/16M/1.3G/12.1" TFT/10x \$4620

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NEC 6050MH • P150MMX/16M/1.4G/10x .TFT \$5650

IBM TP380 • P150/16M/1G/12.1" DSTN/ \$2950

TP380D • P150/16M/1.35G/12.1" DSN/ 8x \$3350

HITACHI MX166T• 166MMX/48M/2.1G/12.1"/8x33.6 \$4900

Daewoo P133-16M 1.4G/ 6x / 12.1" TFT \$2950

All listed prices, quantities and specifacations are subject to changed without notice.

High Capacity ISP Launched

Compiled by KEVIN LINFIELD

Tele globe has launched its Globeinternet service in Canada, offering Internet service providers (ISPs) high-capacity connectivity to networks around the world. This service is claimed to significantly increase the available transmission capacity in Canada through Tele globe's three gateways: Montreal, Toronto, and Vancouver.

Information Overload

Reuters Canada has launched the Reuters Online Canada service for Internet and intranet sites. It is designed to bring general news, sports, business, and entertainment news to Canadian Web publishers, corporate sites, and corporate intranets. For more information, call 416-941-8103 or visit <http://www.mediaworld.com>.

New 16-bit SmartSuite

Lotus has released SmartSuite 4.5, an updated version of its 16-bit desktop productivity suite for Windows 3.1. It includes 16-bit Word Pro 97, 1-2-3, Freelance Graphics, Approach, Organizer, and ScreenCam. Also included is Netscape Navigator and Microsoft Internet Explorer. Lotus claims the 16-bit Word Pro matches the feature set of the Windows 95/NT version. Its estimated retail price is US\$399, and US\$149 for an upgrade. Contact 800-GO-LOTUS, or <http://www.lotus.com>.

Office 97 Intranet Kit

Microsoft is releasing, free-of-charge, its Office 60-Minute intranet kit. Designed to help users get up and running with their own intranet in less than an hour, it features step-by-step instructions on how to create intranets using MS Office 97 and FrontPage 97. Download a copy from <http://www.microsoft.com/office/intranet>

Portable Workstation

Neutral Posture Ergonomics has developed the "computERGO" portable workstation for telecommuters. Complete with a fully adjustable laptop work surface, and document-holder and mouse surface fold-out wings, it includes several spacious organizer and document file pockets. It folds into a

compact suitcase when travelling. Call 409-778-0502 for more details.

Say Cheese

On Aug 4, Storm Technologies Inc. will release EasyPhoto SmartPage Pro for Windows featuring 30-bit color scanning, EasyPhoto organizing software and Adobe PhotoDeluxe. The software can scan any photo up to 20.3x25.4 cm (8x10 in.) at up to 5,000 dots per inch, and the hardware interfaces to your PC via the parallel port. Its suggested price is \$249. For more information, call 888-438-3279, or visit <http://www.easypphoto.com/storm>.

Bank-software Combos Forming

Intuit has teamed up with mbanx to bring the online bank's customers a special edition of Quicken. Available free of charge to current and new mbanx PC banking clients until Aug. 31, this version features integrated banking-transaction and investment-portfolio tracking. Visit <http://www.mbanx.com> for more. Meanwhile, Canada Trust and Microsoft have teamed up to bring Microsoft Money 97 users Active Statement, to allow for seamless automated exchange of information between EasyWeb and financial records managed in Microsoft Money. More information can be found at <http://www.canadatrust.com>

Giant Hard Drive

IBM has announced an 8.4 GB desktop PC hard-disk drive. The Deskstar 8 features IBM's Magnetoresistive Extended (MRX) head technology and Ultra Direct Memory Access/33 technology, which contributes to increased performance of the drive. See <http://www.storage.ibm.com> for more information.

Prints Charming

Sima's new Personal Printshop for Windows enables users to import live video images from videotapes, photographs, or any other video source and then use them to create a variety of personalized printed applications. Personal Printshop includes all necessary hardware (via the parallel port), cables, and software to create greeting cards, calendars, and posters. The suggested retail price for Personal Printshop is US\$299.99. Call 905-513-7733 to learn more.

Hide Your Files

Steganos for Windows 95 is designed to encrypt and hide files within existing graphics, sound, text, and even HTML files. The suggested retail price is US\$39.95. Visit <http://www.steganography.com> or call 212-598-4939 for more details.

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Surf Monkey!

Bandai and Microsoft have teamed up to introduce a special Web browser aimed at six to 14 years old. Surf Monkey is a fun and intuitive front end to Internet Explorer and features chat, Web access, and an email client. Suggested retail price is US\$24.95. Surf over to <http://www.surfmonkey.com> to find out more.

Photo manipulation update

On August 11, Adobe plans to release Adobe PhotoDeluxe 2.0 for Windows and Macintosh. PhotoDeluxe allows even the most basic computer to manipulate and edit digital images. Its estimated street price is US\$49. More details can be found at <http://www.adobe.com>.

Gathering Information

WiseWire is a free, highly intelligent, personalized information service that combs the

Internet and delivers customized information to consumers and business users. The service is ad-driven. See <http://www.wisewire.com> for more.

Hot Web sites

<http://www.arctic-travel.com>

This site features the 400-page Nunavut Handbook, a complete Arctic travel guide

<http://www.virtuallycanadian.com>

Canada's first online radio station, delivering a virtual stream of information, interactive content, and extreme entertainment with a Canadian viewpoint.

<http://www.cbc4kids.ca>

CBC Radio's new Web site for kids, featuring a summer-long children's radio festival.

<http://www.personal.accuweather.com>

This is a personalized online weather service for accurate, comprehensive, localized, and current weather information. ♦

the Technomad

Continued from page 52

Adirondacks. Because the Internet supports both time-shifting (being able to connect to others in spite of differing schedules and time zones) and transparent geography (removing all the obstacles imposed by distance and frontiers), my correspondence and information-sharing was as effective as if it had happened in "real" time.

An excellent cycling holiday, to be sure. But the TechNomad Tour was also designed as a place where technology questions could be asked—and hopefully answered. What did the TechNomad Tour prove?

The good news is that the basic idea behind the tour worked—that I could use a palmtop computer and a cell phone to stay in touch, and that the tools survived the extreme conditions imposed by exposure to the road and to the elements. Not everything worked quite as planned—but the tour was, after all, designed as a testbed, so that only meant that the learning was incorporated into the continuing design.

Charge of the Bike Brigade

First, the solar-panel powered battery charger didn't make it on the trip. At the 11th hour, it was discovered that there was a glitch with the microprocessor that managed the flow to the batteries—the NiCads were OK, but the alkalines weren't accepting the charge. As the sudden power drop at the end of NiCads' life is an issue for use in the palmtop, I decided to leave the solar panel unit behind while the problem was corrected, relying instead on a Pure Energy alkaline recharger. As always, the Pure Energy unit worked beautifully—I recharged all my batteries at a motel in Gananoque, Ont. (after a full day of rain, there was no way I was going to camp that night!), at the offices of Quebec

Micro! in Montreal, and at a campground in New York state, where I found an electrical outlet taped to a tree near my campsite.

Cellular access imposed certain limitations on the experiment. Everywhere I had access to Bell Mobility's roaming feature, I was able to do the needful. The Psion chugged away, the cell phone grabbed the connection from the ether, and email flowed as it was meant to. In New York State, however, NYNEX (the local equivalent of Bell) offers very little cellular coverage—so, while I was in New York, I was effectively shut off from access.

The fact that the fastest connection possible through a cellular phone is 9.6Kbps made me decide not to transmit photos taken with the digital camera as file attachments—sending a number of 1KB or 2KB text messages was one thing, but waiting for a 1.5 MB image file to transfer at 9.6Kbps was simply impractical. So I went to Plan B, which was to store the photos on the Kodak DC25, record their subjects and locations on the Psion, and transfer the images to the TechNomad Web site on my return.

With those two exceptions, though, everything worked beautifully. And the experiences I had on the Tour not only demonstrated the possibilities of mobile computing, but also marked the threshold of new and exciting developments in the field—which is why I'm already planning an enhanced TechNomad 2 Tour for 1998.

Check out the TechNomad Web site to see the results of the 1997 Tour and to check out what's developing for 1998. Point your Web browser at <http://www.praxcomm.com> and have a good look around—and don't forget to send me some email!

Alan Thwaites is a freelance journalist who specializes in mobile computing and online technologies. He can be reached at nomad@praxcomm.com ♦

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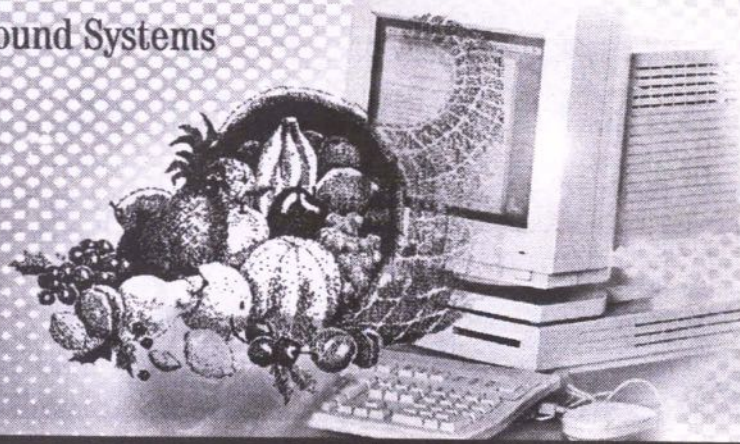
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Application programs, the Internet, games—they're trying to fill up your hard drive and keep your computer busy. New programs do more, and require more disk space, more memory to run, a faster processor.

These three parts of the computer—the hard disk, random access memory (RAM), and the central processing unit (CPU)—are the parts that may need upgrading. More speed and more space means upgrading these components.

Two years ago, I bought a new, fast Pentium 90, with 16 MB of memory and an 800 MB hard disk. It was a big improvement over the 386 that preceded it. I was a happy computer.

Prices fell. Memory, in particular, finally got so cheap that I couldn't resist boosting it to 32 MB.

The speed improvement was immediate and obvious. With 32 MB, swapping from one program to another is much faster, and the system is more responsive. When a multi-tasking operating system fills memory with programs, it has to keep programs that aren't in use on disk. Because the disk is much slower than memory, it takes more time to change programs.



Enough is Enough

How much memory is enough? Given the current low price of memory, 16 MB is a practical minimum for almost any computer. Windows 3.1, Windows 95, and OS/2 will run happily in 16 MB. If you're running Windows NT, you'll want at least 32 MB. In either case, doubling that amount of memory will mean better performance.

As I enjoyed my faster computer, disk space began filling up. I wasn't doing so much more work that I needed space to store my documents. Nor was I buying a lot of programs, but each new version of a program is larger than its predecessor. My Internet explorations take space: each browser has a cache of recently accessed sites so it can redisplay them quickly. The assumption here is that communication to the Internet is limited but my hard disk is not.

So, with plans to upgrade to Office 97 (100 MB or more), it seemed inevitable that I'd need a larger hard disk, and I decided to buy it sooner rather than later.

The new drive gave me more than just space, however. New drives are faster, and I noticed Win95 loads in less time. The old drive is a very fast backup device. If I buy another computer, I can move the hard drive to it, so after it's paid for, it's an upgrade with no downside.

Your processor requires more thought. If you were buying a new computer, you'd want the fastest processor you could afford—more because it will still be fast three years from now than for what you want to do now. Similarly for an upgrade, get the fastest chip you can afford, one that is easy to install.

You can get a new motherboard to convert your 486 to a Pentium. Chris Wagg of MPM Computers Inc. in Toronto, however, suggests you sell your 486, or give it to the kids. A new motherboard is almost as expensive as a new computer. The 486 and Pentium architectures are very different, creating problems with other components.

Thinking Alike

On the other hand, trading your Pentium for a faster Pentium is usually a fairly easy swap. The jumpers have to be changed to set the speed, and you trade one chip for the other.

I decided not to upgrade the processor for now. What would make me want a faster CPU? If I played a lot of action games, did a lot of specialized processing (such as graphics work), or wrote PC programs for a living, I'd definitely consider a change. At some point, the MMX technology will be standard (for now, there are few programs written for it). But for routine work such as writing, the Pentium 90 is sufficient.

For now, as programs get even more complicated, I'll have to upgrade my CPU some day. Right now, I have a machine that meets my needs. That's the most important consideration.

Jim Caughran has thought of programming a mainframe to emulate a personal computer, but prefers a simpler life. Send him a line at Jim.Caughran@sympatico.ca. ♦

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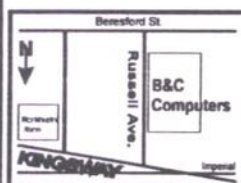
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Protecting Kids From the Dark Side of the Net

BY SANDRA MINGAIL

A Grade 5 student logs on to the Internet for some serious after-dinner surfing. A few easy clicks and presto—instant access to pornographic pictures or racist speeches. Whether on a dare or through simple curiosity, Net-savvy youngsters easily stray to the wrong side of the info highway. Pornography, gambling, drug formulas, hate propaganda, and cyber strangers lurk closer than the glossy magazines at our corner store.

With more and more schools and homes subscribing to Internet services, the need for kid-safe surfing has spurred a parade of filtering software tools. Anointed with names to comfort jittery parents and academic stakeholders—KinderGuard, Net Nanny, Cybersitter, Surfwatch—each product employs a slightly different approach to blocking Internet content.

One product employs strict time-limit controls, while another operates in an undercover "stealth" mode as it tracks young surfers' cyber tracks. Logs are often kept so parents or school site administrators can pinpoint guilty online culprits.

More sophisticated filtering software advertises features that block words or phrases in context, so words with double meanings are not inadvertently blocked. Heavy-duty filter programs offer two-way screening in real time, so kids are covered just in case they're coaxed to reveal a home address or phone number or engage in inappropriate Internet Relay Chat (IRC).

Filtering software usually sells for around \$50, and there are shareware versions available to download. But it's a buyer-beware scenario—some products offer monthly subscriptions to their blocked site database at no charge, while others augment low purchase price with a monthly tab.

An emerging trend in preventing access to certain sites involves products that combine both site-filtering management tools and rating schemes. Specs for Kids offers a subscription-based service with access to more than 5,000 family and education-oriented pre-rated sites. Individual directories and documents within a site are also rated. Non subscribers visit the site, enter a URL, and determine whether it has been rated. Companies and individuals are free to enter their own site ratings.

The rise of a classification system for Internet sites raises a host of questions. Who will set the standards for rating systems? How will the lack of international and cultural boundaries affect ratings? And just where does an expanding, nebulous electronic community draw the line regarding censorship?

Filtering solutions to date are not 100 percent safe. So, what are concerned parents and educators to do?

A recent Internet use survey conducted in over 30 Australian schools recommends a mixed solution. It suggests teachers physically monitor student computer use through strategic placement of computers, where screens can be easily viewed by the instructor. Log files should be maintained and random checks conducted to determine where students are traveling. Teachers can also use software that downloads predetermined sites for offline viewing. And using an Internet service provider that limits access to tools such as IRC and newsgroups.

But many would argue physical constraints

alone are not good enough to quell student misuse of Internet communication tools. They advocate communication with youngsters. Honest and open dialogue about online safety issues, they believe, will instill a sense of responsibility.

Acceptable-use policies (AUPs) are becoming

the norm in wired schools. A contract-like document, the goal of AUPs is to spell out appropriate use of school computer equipment, as well as consequences if these rules are violated.



Feature

As more and more young people discover the joys of Internet exploration, filtering online access will become a greater child-rearing issue. For the time being, there is no such thing as filtering standards. How parents choose to meet the challenge is largely a personal decision. ♦

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Here are a few of the highlights and observations from Comdex Canada 97 (held in Toronto, July 9-11) gathered by *Computer Player!* correspondents Lynn Grenier, Kevin Linfield, Caryn Mladen, David Rosen, S.J. Ross, Jacques Surveyer, and Peter O. Walpole.

Bright Lights, Big Comdex

What was the biggest thing at Comdex Canada this year? Comdex itself! It was huge—massive—and lots of companies, big and small, showed up. Notable for their absence were Apple and IBM, but while the Apple was discussed (albeit in hushed tones of condolence), IBM was hardly missed. Microsoft had the typical over-the-top locale and Novell proved it hasn't figured out anything about marketing after a decade of trying, with its slogan "Rock the Net." And I've just got to ask: Why would anyone name a company Fluke?—CM

Double the Screen Real Estate

I'm a sucker for large, clear, beautiful monitors. The one that captured my attention at Comdex Canada 97 was the Sony W900 (\$5,999). It uses the Advanced Trinitron tube, but in a 24-inch diagonal screen that yields a unique 16:10 aspect ratio. Maximum resolution is 1,920x1,200 at a flicker-free 76 Hz. It's 30 percent larger than a regular 20-inch monitor. I'll take one!—POW

InfoInteractive

InfoInteractive is a service, not a physical product, but it's still a great Comdex find. It monitors your phone line while you're surfing the Web, and notifies you if someone is trying to call—it even tells you who. You then have the options of sending the person a recorded message saying you'll call them back, sending a message asking them to call later, or ignoring the call. It costs about \$5 per month, plus whatever your phone company's Call Forward Busy service costs. Get more information, or sign up for a 30-day free trial, at <http://www.interactive.ca>.—LG

Joystick joy

While cruising the floor of Comdex, I was awed by Techmedia's TechMaster 3D wireless joystick. This small, hand-held device is claimed to be the first (and only) joystick that delivers true 3D tracking and positioning for games such as Quake, Descent, and Virtual Cop. I played Doom with it and, while it does take a bit of getting used to, it was definitely fun. The TechMaster joystick delivers digital real-time positioning using ultrasound and infrared technology in three dimensions. It is compatible with all current single- and two-button mouse applications, and I was told it would be available through CompuCentre in Canada for less than \$100 this fall. Techmedia is online at <http://www.techmedia.net>.—KL

Batra's WebSurfer

Want to hop on the Net, but don't have a computer? Well, if Markham, Ont.-based Batra International Corp. has its way, you'll be able to do just that by using a low-cost set-top box

and your standard TV. WebSurfer is an interactive device that lets non-computer owners access the Internet and the Web. You can also send and receive email. The company claims links can also be made to a computer monitor, printer, and even a ZIP drive. The WebSurfer unit has a 33.6Kbps modem and the future ability to upgrade its own software via the Web. Batra says WebSurfer will be available later in August at a leased cost of just under \$40 per month, including unlimited Internet access. Batra can be contacted at 888-527-8888 or at <http://www.websurfer.org>.—DR

IMSI MasterClips 150,000

IMSI's largest clip-art collection, MasterClips 150,000 (they also have a 35,000 collection and a 101,000 collection) probably contains far more fonts, clip art, photographs, animations, sounds, and Web-page images than a single person could use in an entire lifetime—but it would be fun to try. Housed on 14 CD-ROMs, MasterClips 150,000 contains, among other things, 1,400 GIF Web-page images, 2,000 TrueType fonts, more than 54,000 scalable black-and-white and color vector-art images, 47,000 JPG photos in 50 categories, and 47,000 TIF images (including drawings and engravings). Also included is a handy image browser and clip-art editor. It is available for both Windows and Mac for a suggested retail price of US\$69.95. Contact 800-833-8082 for more information.—SJR

Noticing Notebooks

The Toshiba Libretto mini-notebook weighs in at a mere 810 g (1.8 lb.) and is so sleek it's hard to believe it has a hard drive. The Libretto has a suggested retail price of \$3,139. But the toys that really set my geek heart aflutter were Panasonic's rugged-style notebook with magnesium-alloy outer coverings resembling the soles of hiking boots. They're resistant to water, shock, dust, and the perils of being dropped (although I'm not clear on how to shock a notebook). Priced at \$4,920 to \$6,945 for the CF-25, and \$5,585 to \$6,600 for the newly released 2.25 kg (5 lb.) slimline CF-35, you don't have to be a klutz to love them...but it helps. Otherwise, try out the CF-62 for \$8,130. It's full of options and scores serious points for having the world's first 650 MB rewritable optical drive. Get the details at <http://www.toshiba.ca/html/notebooks.html> and <http://www.panasonic.com/PCSC/PPCC/products.html>.—CM

Photo-Manipulation Marvels

Two great new products have arrived that plug some holes in the photo-manipulation software field. Wright Design provides smooth page-layout design features for huge bitmaps mixed with vector drawings. It is a hybrid whose speed and functionality grow with you. Telepix's Get the Picture is a god-send—a photo album that stores images (and sound) with speed and usability for about \$125. It takes another zero on the end of that figure before Get the Picture can be matched by competing programs. Contact Wright Technologies at <http://www.wrightna.com> and Telepix Imaging Inc. at <http://www.telepix.com>.—JS

Continued on page 63

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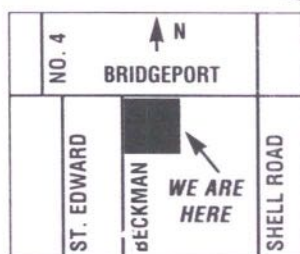
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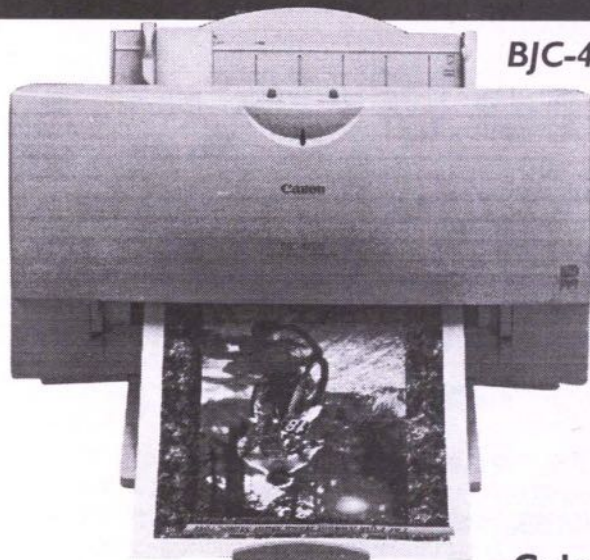


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如何選 Internet 服務公司(II)

作者：林啓清(JimLin)

一、前言

這幾期在Player上陸續寫了幾篇有關選用Internet的文章，收到不少讀者的來信，大部份都是對筆者文章的内容作更進一步的瞭解？可見大部份的人都有這方面的需求，但是卻找不到人問，吃了虧也就往肚子裡吞，還不斷有人在繼續吃虧...)

當然，花錢買經驗這是許多人都會做過的事？但是，如果這種經驗很貴，那就不得不謹慎一點了？

二、Unlimited是真的嗎？

許多人一直找不到好的ISP？也有人問筆者，希望我能建議一家ISP？

我只能講，在我的立場，是沒有一家ISP符合我好的條件的。因為每個人的要求不一樣，只要能滿足您的需求，那這家ISP在您來講，那就是好ISP。

天下沒有白吃的午餐？每個人都想全天24小時連在Internet上，那開ISP的人鐵定要賠錢賠得慘兮兮。

有許多人看了廣告上的Unlimited而加入某家ISP，但卻一次也不連上該ISP？所以，本來想佔便宜的，卻反而吃虧了。

所以，越想找便宜的人，越是貪便宜，也就越容易上當。

筆者可以斬金截鐵的講，如果有某家ISP號稱他們是Unlimited Time(無使用時數限制)，那麼該家ISP肯定賠錢，而且賠慘了！

賠錢的生意沒人會做？那為何會這樣呢？原來這只是數字遊戲？

據說ISP他們的每一條電話線是\$100(BCTEL收的)，而不是我們家用的十幾元。

而目前的ISP平均每個會員是收費約\$20。如果有一個會員連上整個月不斷線，但是電話線這裡就已經賠了\$80？還有專線的租金、電腦損耗、電費、房租、人工等這些費用完全沒有著落？所以，ISP對於這種一連上就不斷線的會員真是怕極了...)

所以，雖然他們號稱Unlimited Time，只要您真的使用24小時，一段時間後，您肯定被列為黑名單，就算打電話去抱怨頻頻被斷線，也不會得到什麼好臉色哦！

實際上，並不會每個人這樣瘋狂連上Internet不斷線。所以，好客戶及壞客戶(連上就不斷線的人)平均一下，還不會令稍有規模的ISP受不了的。

但是，當這種不斷線的客戶慢慢增多時(被別家ISP趕出來的)，該ISP就會越來越難撥，好客戶就會開始抱怨及流失。這個時候，該ISP只有幾種方法可用：

- 1) 把壞客戶趕走
- 2) 增加線路(這會增加成本，很少會這樣做)
- 3) 改為非Unlimited(從此就有使用時間限制)

有人可能會想，ISP怎麼可以這樣為所欲為呢？當初明明講好是Unlimited的？筆者問問大家，您會去告ISP嗎？只為了區區\$20？也許您會，但ISP真的是賠錢，被告的話，大不了關門了事。

所以，像這種游牧民族(壞客戶)很多，他們要的只是一直在Internet上，而不在乎一直改E-Mail Address。沒辦法，溫哥華太多有閒的移民了。

如果您很容易搬進去這種無時數限制的ISP，那只有兩個原因：

- 1) 他是新的ISP，以後會越來越難撥
- 2) 您使用的時段是離峰時間

很多人一廂情願的想，這些ISP會因為線路過忙而增線，但事實是增線的速度永遠跟不上用戶的增加速度。

筆者良心的建議是，如果您想讓您的E-Mail帳戶變成半永久性的個人資料之一，最好是找一家不以無時數限制來招徠客戶的ISP為上策。

像沒有使用時數限制的這些ISP都是屬於殺雞取卵型的，筆者並不看好(如果只是偶而為之，用來促銷，另當別論)。

三、傳統ISP的末日

如果您的消息靈通，您應該知道Rogers Cable也有提供Internet服務。

由於Cable是一直接連在每個用戶的家中，而且是隨時都可以提供服務(只要您開電視)。不像電話必須撥了某個號碼，您的電話才會被接通。

所以，如果能利用Cable來當Internet的資料傳輸媒介的話，那我們豈不是可以隨時都可以即時收電子郵件(只要您的電腦開著)了？

沒錯，用Cable來傳Internet的資料真是酷呆了！

但Cable公司就頭痛了？

因為用來傳輸電視信號的Cable，當初只是設計用來傳送單向的資料，而無法接收由用戶所傳來的大量資料。

如果要讓Cable上能承載數據信號，Cable公司那邊的機房可能又要大興土木了。

這就是最近看到Cable公司在外面裝東西的原因(許多人以為是在抓非法的解碼器)。

用戶端這邊並不是把Cable往電腦一接就連上Internet了，而需要向Cable公司租用一個叫Cable Modem的東西，Cable Modem則接到一片網路卡，網路卡則插到您的電腦裡面。

許多人聽到又要插卡，就開始緊張了，因為每次一插新卡，電腦就會出問題，不是這裡衝到，就是那裡衝到，最後電腦都要送回原廠去調教。

所以，每一家打算當ISP的Cable公司，都要養為數不少的技術人員，專門到府安裝Cable Modem。

就目前所知，如果您簽一年約，每個月只要付\$55(加幣)，如果按月付錢，則每個月是CAD\$65。這個費用已經包含Cable Modem的租金了。

第一次安裝時，您要支付約CAD\$150-200的安裝費(視您的電腦機種而定)。一般會有兩位技術人員到您家幫您安裝。目前是在促銷期，所以安裝費只收CAD\$50哦！

至於Cable Internet的速度，理論上可以到30M，但目前約只有下傳10M，上傳則約2M。

由於Cable的線路架設結構的問題，所以當有大量用戶同時上網時，每位在下載資料的用戶，其下載速度可能會降至500K左右，但還是比目前傳統的33.6K快上許多。

最酷的一點是，由於Cable是全天24小時連著，您可以透過Internet來講Internet Phone，不必擔心ISP給您的每月時間限制超過。

如果以一條Internet專用的電話線(就是向BCTEL申請一條家用電話，但

只用來上Internet用)再加上ISP的會員費，一個月約要花\$40，而且只有33.6K(或56K)的速度。別忘了，您還要花錢買一部約\$100-300的數據機(MODEM)？

但是您用Cable Internet，只要先花\$50(目前促銷價)的安裝費，然後每個月再花\$55就可以24小時連在Internet上，而且傳輸速度是以Mega來計算，而不是傳統的ISP用K來計算哦！

這樣看來，傳統的ISP是不是已經走到盡頭了呢？筆者不敢說，大家可以拭目以待！

四、Internet上的多媒體市場

Internet上的使用者目前都可以在電腦上欣賞到音樂、電影、錄影帶和戲劇等節目，不少新節目都是從以往收音機和電視黃金時期的代表作中抽取出來的，如問答遊戲節目、談話性節目、肥皂劇、卡通等。不同的是這些節目已經儲存在Internet，用戶可以隨時隨地重溫。1995年4月，一位名叫格拉澤的商人在美國西雅圖成立了一間名為Progressive Networks的公司。他們把電台播放的節目收入網路，供一般人由Internet接收。

格拉澤使用了一種名叫RealAudio的資料壓縮技術，所以聲音品質很高，只要先選擇該節目的代號，便可以立即從電腦的喇叭中聽到。如果只想收聽某一時段的節目，聽眾只要在電腦螢幕上選擇暫停、回捲、前進等按鍵即可。

美國的一些大型廣播電台已取得利用RealAudio技術的授權，以便透過Internet來播放他們的廣播性節目。例如，國家公衆電台(National Public Radio)已利用RealAudio在Internet上播放一些新聞時事節目；ABC電台亦把該台每小時的新聞播送上Internet，計畫

中還會利用這技術來播放問答遊戲和談話性節目，使Internet上的聽眾更能投入電台節目。

當然，目前見到的WorldWideWeb瀏覽軟體(NetScape等)也都可以直接安裝RealAudio的Plugin軟體，而有讀取這種資訊的能力。

目前，RealAudio又發展了一種RealVideo的技術，使得在Internet上看電視、電影已經不是夢想。最新版的是Real Player (Real Audio + RealVideo) V4.0。

裝上這樣的軟體，您就可以直接在網上隨時看華視新聞、超級星期天，紅白對抗等著名的中文節目哦！

筆者已經很久不看20、55臺那種經過剪輯的新聞報告了，直接透過Internet看沒過剪輯及完全沒有任何廣告的節目豈不

Chinese

更過癮...:-)

五、結語

如果您在安裝RealPlayer有什麼問題，歡迎與筆者聯絡(jimlin@intergate.bc.ca)，WebSite: <http://www.cads.com.tw>

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PIC and Dragon Writer are available at Chapters Bookstores across Canada.



Have you been fully utilizing the Internet yet?

Send video mail to your friends and family over the Internet. Lets you express yourself with full-motion colour video and audio. 如何可以充份利用國際網路？今日日新月異的電腦科技為我們帶來很多方便，不單可以收看中、英文資訊及使用電子郵件，更可藉電腦影視系統的幫助，好讓我們和遠方的親友相見；再沒有因海角一方，飽嚙離鄉別井之苦。

Video Camera 電腦影視系統

You can always enclose your smile along with your message through video mail. 一般同類電腦影視系統價錢由\$300 - \$350左右。分別在接收效果和產品特性方面。請留意下期多項商品詳盡介紹。

The price for video camera system ranges from \$300 to \$350 including camera, capture card and software. The differences between brands are based on effectiveness and product features.

Handwriting E-mail 手寫電子郵件 In addition, you can e-mail in your own Chinese handwriting to your friends and relatives. 現今電子郵件不一定要依靠鍵盤輸入內容，可藉手寫筆在電子郵件上書寫收、發信件。既親切又自然。而市面流行的漢筆和慧筆都附送手寫電子郵件程式，可讓閣下在電子郵件上保持原有筆順和個人書寫風格，亦不用另加中文軟件。

Add-on Chinese software products Which one is the best buy and the most reliable operating on English Windows 95 and NT? 那一套外掛式中文軟件最好及最實用？

中文軟件分門別類，各有所長。應視乎個人或公司團體的需要而選購。一些外掛式中文軟件性能超卓，但較為複雜難用。反之，一些中文軟件以簡單易學為其中產品特性之一，每每吸引不少支持者。

為大家認識和已廣泛使用外掛式中文軟件 (零售價 S.R.P. \$299)：

- 加盟 Unionway
- 雙橋 TwinBridge
- 圖龍 Dragon Writer

此外，還有一類是超值套裝牌子，如華夏軟件可供選擇分普通裝 \$299、黃金裝 \$349 和白金裝 \$399：

- 華夏 Chinese Gateway

其它較為廉價的牌子 (\$199)：

- 理想中文系統 ChinesePro
- 利方多元系統 RichWin

在眾多中文軟件中，雙橋歷史悠久，一度為廣大朋友所選用，而功能亦算不錯。一直以來，雙橋內附有英漢辭典、單字翻譯器及造字器等。但隨現今中文軟件科技的發展和改良，很多新中文軟件已面世，除功能特別新外，當中亦有部份軟件產品改為三十二位元，但雙橋仍是一套十六位元的外掛式軟件，只能支援視窗 3.1 和 95。對一般個人或家庭式電腦使用人士來說，使用雙橋中文系統亦可以。

選擇一套適合的中文軟件應視乎其

- Video conference over Internet 跨國業務的朋友可在國際網路上作視像會議
- Video Phone 又可利用視像通話功能
- * can record live audio and video 即時即地記錄活生生的影音效果
- Whiteboard Usage 如同在會議過程中，白板活現在眼前，加速雙方面的溝通和引證。

It does not matter where you are, you can keep in touch with your beloved one in a much more personal way than regular E-mail.



型號，性能和電腦系統要求。當然，價錢方面亦是重要因素之一。對部份客戶來說，選購最貴的一套中文軟件，不一定最合適；反之，日後一連串系統升級和加 RAM，麻煩便會更多，所有額外的開支加起來，往往超出預算。

所謂一分錢一分貨，一般原裝版的中文軟件，必內有註冊證明書。購者中買者可得到製造商的承認、完善技術支援、新產品優先通知及特惠價格。一些享譽誠名的公司對顧客售後支援服務是非常重視。

本地銷售商亦應該對自己所代理的軟件有認識。困難時，每當顧客在本地使用軟件遇到困難，那得在本地是良銷售商為求達到高銷售額，或出或售，錯誤引導購買舊貨，當然不會提供甚麼售後支援服務。

買原裝正版的軟件好處是確保軟件為最新價值。選擇較高的，如舊軟件，其價值應越新越高；如舊軟件，其價值應越新越高。買原裝正版的軟件好處是確保軟件為最新價值。選擇較高的，如舊軟件，其價值應越新越高。買原裝正版的軟件好處是確保軟件為最新價值。選擇較高的，如舊軟件，其價值應越新越高。

Many new powerful Chinese software systems are available these days, customers should view a complete product demos before purchasing. Watch out for any illegal OEM package and old stock. Software is not like a piece of antique. Always go for the newest one in the market if it is all possible.

Product News 最新產品消息報導

自六月份開始，精品漢筆是 32 位元，可專為最新的視窗 NT 系統而製造。Since June, GoGo Pen 32-bit driver for Windows NT has been released. 各位朋友可在國際網路上得到精品漢筆 Windows NT 版本，完全是 32 位元。漢筆 V 5.0 的解析度 (Resolution) 1024 LPI (DPI)，而一些較平宜手寫筆的解析度為 256 LPI。若解析度低，劃面接收到的點數少，程式在判斷文字的準確度較低。

以上資料由快達電腦公司選寫及基峰 (精品漢筆) 香港公司協助提供 歡迎各方朋友查詢及同業指教

Information is provided by Angela Yiu
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www.instant-solutions.com
E-mail: info@instant-solutions.com

Comdex

Continued from page 58

An Eyeful of Printers

In my search of Comdex for a color printer I found several pleasant possibilities. The Canon Bubble Jet 4200, priced at \$350, produces a wonderfully detailed color print using a 720x360 dot per inch (dpi) print matrix. At that price and quality it would fit into any home and would serve well in a small office. The Lexmark 7000, at about \$550, produced a delicately shaded sample "photo" using a 1,200x1,200 dpi matrix. The clarity and detail were wonderful. This would make a super small-office printer where color output is required. At \$799, the new Epson Stylus 1520 produces stunning near-photo quality prints in large formats (13.6x21.7 in.) or banners, using the banner kit. The print matrix is 1,440x720 dpi. On high-gloss paper, reproduced photos (at about \$1.50 each) were outstanding. Samples of maps showed very fine details. I need one. For more information, contact Canon Canada at <http://www.canon.com>, Lexmark Canada at <http://www.lexmark.com>, and Epson Canada at <http://www.epson.com>. —POW

Mellow right out

Laptop Laidback comes from our laid-back Maritimes. It's a \$65 wooden bed table that's ideally configured for computer use. As a matter of fact, the Comdex demonstrator spent a comfy few days reclining on a cot, proving the point. Have a peek at their Web site for more information at home.istar.ca/~laidback. —LG

Marvelous Mavica

Imagine taking pictures and using standard floppy disks as film. That is what Sony has done with its new Digital Mavica. This device is a digital still camera that, amazing as it sounds, saves its pictures in JPEG format on a standard 3.5-inch floppy. Each disk can store up to 40 images at 640x480, 24-bit VGA resolution. The disk can then simply be removed and the images copied to any PC or Macintosh computer. Model MVC-FD5 features a 2.5-inch colour LCD screen for image monitoring and picture review, as well as a built-in flash and self-timer. It has a suggested retail price of \$199. Model MVC-FD7 also features a 10x optical zoom lens, manual/auto focus, and five preprogrammed exposure settings. It has a suggested retail of \$999. For more information, visit <http://www.sel.sony.com/SEL/consumer/mavica/wgreat.html>. —KL

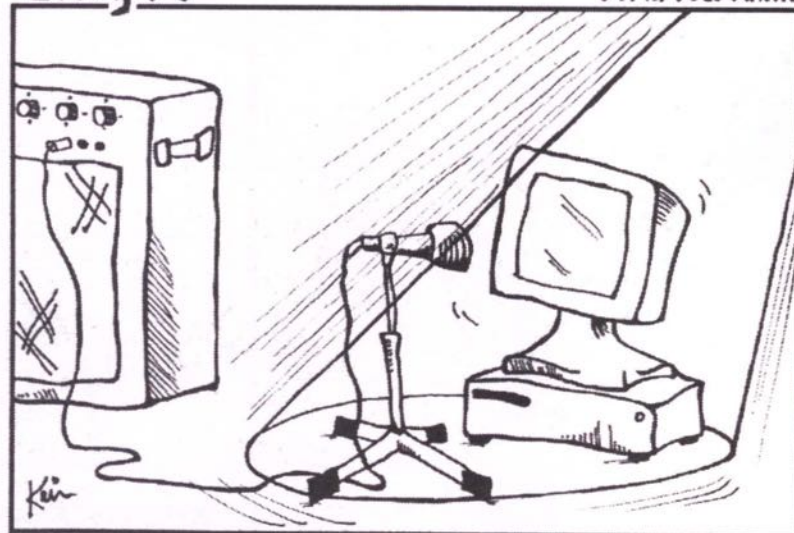
Smart Board

The Smart Board is a Canadian-developed tool that lets you electronically annotate a computer-based presentation, right on the projection surface, then save those annotations to a file for distribution to meeting participants. As well, the board's touch-sensitive

surface permits control of slide changes and such with a gentle tap, so you don't have to wrestle with a mouse on an always too-short cord. There are several models of various sizes, for both front and rear projection. Prices start at about \$1,650. Check it out on the Web at <http://www.smarttech.com>. —LG ♦

Lingos

BY: K. COLBOURNE



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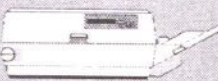
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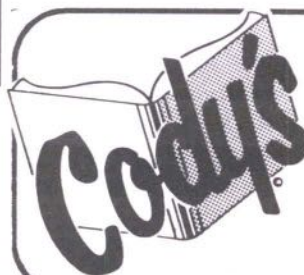
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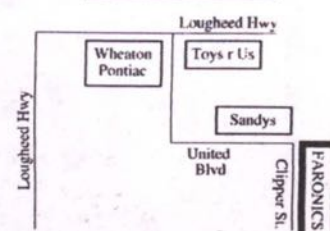
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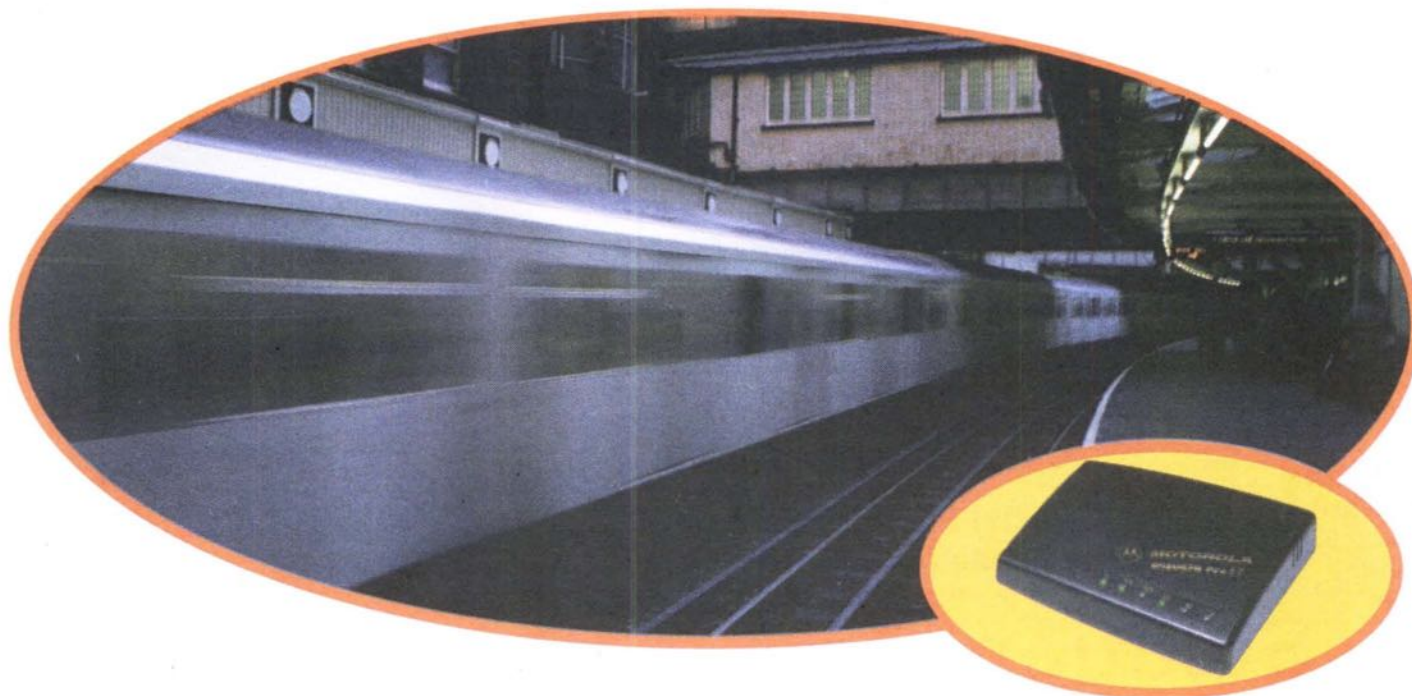
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